Doc. 300.1.1

Date: 13 July 2023

External Evaluation Report

(Conventional-face-to-face programme of study)

- **Higher Education Institution: European University of Cyprus**

- **Town: Nicosia**

- **School/Faculty (if applicable): School of Sciences**

- **Department/ Sector: Department of Life Sciences**

- **Programme of study- Name (Duration, ECTS, Cycle)**

  In Greek:

  Programme Name

  In English:

  B.Sc. Biomedical Studies (4 years, 240 ECTS, 1st cycle)

- **Language(s) of instruction: English**

- **Programme's status:** Currently Operating

- **Concentrations (if any):**

  In Greek: Concentrations
  In English: Concentrations

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A. Introduction
This part includes basic information regarding the onsite visit.

A site visit took place on 10 July 2023 at the European University Cyprus campus. A full-day schedule (09.00-17.15) had been prepared to allow ample interaction with the leadership, teachers, students and graduates as well as administrative staff involved in the B.Sc. in biomedical sciences 4-year programme. This programme is organized by the Department of Life Sciences under the School of Sciences. The latter offers a total of 14 B.Sc.,15 M.Sc. and 7 Ph.D. programmes of study to approx. 2300 registered students. The School has 66 full-time faculty members with varying degrees of teaching and international research experience. The Department of Life Sciences has 22 faculty members and the responsibility for five B.Sc., three M.Sc. and two Ph.D. programmes, all conventional studies (as opposed to eLearning programmes).

All meetings took place in the Senate room at the School of Sciences. Prior to the visit, the external evaluation committee had received the Application for Evaluation dated April 2021 from the agency, as well as some other written background material. As further underlying documentation for the evaluation, the committee requested samples of final and mid-term exams, high- and low-graded lab reports and final theses.

After introductions of the external evaluation committee members, the first meeting of the day involved the University, School and Department leadership. During this meeting, a general overview of these three levels was given by the Vice Rector, Dean and Department Chair, respectively.

The second meeting of the day concerned the structure and status of the School of Sciences and more specifically the Department of Life Sciences. A recent SWOT analysis regarding the Department's mission and strategic planning was presented by the faculty representative of the Departmental committee of internal quality assurance, who also serves the role as coordinator of the B.Sc. programme under scrutiny. The committee was also given an overview presentation of the B.Sc. in Biomedical Sciences programme by the coordinator of the programme. Slides from all three presentations were digitally shared with the committee.

The third meeting of the day featured nine available teachers involved in the B.Sc. programme. Detailed course parameters were scrutinized and discussed. In a follow-up meeting, the programme coordinator left the room so that the committee could discuss further questions with teaching staff only. The teachers were very active and interested in their communication with the committee.

Following a brief lunch break, the committee was given the opportunity to meet with a group of students and graduates from the B.Sc. programme in question. Eight were present in the room whilst another three joined via Zoom. Similarly to the teacher group, the students were very forthcoming and eager to talk about their experiences during the B.Sc. programme, the reasons why they chose to enroll (all) and also why they chose either to stay at the European University of Cyprus or not after the end of the programme (for graduates/alumni).

The committee was also given the possibility to follow two examples of pedagogic activities (a lecture and a lab analysis session which are parts of the course in Medical Genetics). This was done via links to video files.

The second last meeting of the day involved members of the administrative staff who support the teachers and the students in the B.Sc. programme. The committee was given short summaries of the work done by career advisors, head of admissions, international student advisors, the Department of information systems and operations, as well as information from the head librarian. All gave dedicated reports on the importance of supporting the students and their learning process in various ways.

Thereafter, the committee was offered a tour around the teaching premises including student laboratories, library, lecture halls, study rooms and also to some of the research facilities). The committee was duly impressed with most of the premises which appeared to be well suited for the purpose of the B.Sc. programme.

After the visit around the premises, the committee withdrew for a short internal discussion to summarize and make a list of clarifications needed from the programme coordinator and leadership group, who joined the committee for the last meeting of the day. Some apparent discrepancies or misunderstandings were sorted out and the committee thanked the University, School, Department and course leaderships for their time and for a very interesting and informative evaluation visit.

Finally, the committee would like to make some notes regarding formalities of and apparent inconsistencies in the application. We noticed that the application is still dated 8 April 2021 even if we were informed that it had been updated. It is still obvious to us that many of the data points in the applications are not up-to-date, e.g. most of the staff CVs appear to have no publications after 2021. There are minor exceptions to this (e.g. five publications from 2022 in one CV on p. 174 in the Application) but it has constituted a challenge for the committee since it is not clear if research activity has stopped or if the CV is not updated.

Similarly, we think the form used is suboptimal when it comes to publications since it asks the teachers to list "Other authors" in column 4 of the publication section of the CV. This causes two kinds of problems: a) it becomes impossible (without going to the databases) to judge what position (first, last etc) this scientist had on this publication; and b) it causes inconsistency since many teachers included their names on some publications but not on others.

We also noted at the top of p.3 in the Application for Evaluation that "This document is submitted on the basis of… ….for the first evaluation of a new programme of study". This is confusing because this application is in fact not for first evaluation of a new programme but rather for the re-evaluation of an existing programme.

In brief, it would have been more helpful for the committee to obtain upfront an up-to-date Application for Evaluation with the above improvement and that also included (i) statistics on student numbers, including a specification of real drop-out numbers vs. numbers of transfer students, and (ii) a recent SWOT analysis of the course to be evaluated. Having said that, we still found the lion part of the Application for Evaluation very useful and clearly laid out by those responsible for submitting it.

B. External Evaluation Committee (EEC)

Name	Position	University
Prof. Dr. Martin L Olsson	Chair	Lund University
Prof. Dr. Helen Papadaki	Member	University of Crete
Prof. Dr. Leendert Hamoen	Member	University of Amsterdam
Mr. Stephanos Hilides	Student representative	University of Cyprus

C. Guidelines on content and structure of the report

- *The external evaluation report follows the structure of assessment areas.*

- *At the beginning of each assessment area there is a box presenting:*
  (a) *sub-areas*
  (b) *standards which are relevant to the European Standards and Guidelines (ESG)*
  (c) *some questions that EEC may find useful.*

- *The questions aim at facilitating the understanding of each assessment area and at illustrating the range of topics covered by the standards.*

- *Under each assessment area, it is important to provide information regarding the compliance with the requirements of each sub-area. In particular, the following must be included:*

  ### *Findings*

  A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

  ### *Strengths*

  A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

  ### *Areas of improvement and recommendations*

  A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

- *The EEC should state the compliance for each sub-area (Non-compliant, Partially compliant, Compliant), which must be in agreement with everything stated in the report. It is pointed out that, in the case of standards that cannot be applied due to the status of the HEI and/or of the programme of study, N/A (= Not Applicable) should be noted.*

- *The EEC should state the conclusions and final remarks regarding the programme of study as a whole.*

- ***The report may also address other issues which the EEC finds relevant.***

1. Study programme and study programme'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

Standards

- *Policy for quality assurance of the programme 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*
  - *ensures academic integrity and freedom and is vigilant against academic fraud*
  - *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 programme of study:*
  - *is designed with overall programme objectives that are in line with the institutional strategy and have explicit intended learning outcomes*
  - *is designed by involving students and other stakeholders*
  - *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)*
  - *is designed so that it enables smooth student progression*
  - *is designed so that the exams' and assignments' content corresponds to the level of the programme and the number of ECTS*
  - *defines the expected student workload in ECTS*

- o *includes well-structured placement opportunities where appropriate*
- o *is subject to a formal institutional approval process*
- o *results in a qualification that is clearly specified and communicated, and refers to the correct level of the National Qualifications Framework for Higher Education and, consequently, to the Framework for Qualifications of the European Higher Education Area*
- o *is regularly monitored in the light of the latest research in the given discipline, thus ensuring that the programme is up-to-date*
- o *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 in relation to the programme*
- o *is reviewed and revised regularly involving students and other stakeholders*

1.3 Public information

Standards

- *Regarding the programme 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

Standards

- *Information for the effective management of the programme of study is collected, monitored and analysed:*
  - o *key performance indicators*
  - o *profile of the student population*
  - o *student progression, success and drop-out rates*
  - o *students' satisfaction with their programmes*
  - o *learning resources and student support available*
  - o *career paths of graduates*

- *Students and staff are involved in providing and analysing information and planning follow-up activities.*

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You may also consider the following questions:

- *What is the procedure for quality assurance of the programme and who is involved?*
- *Who is involved in the study programme's design and development (launching, changing, internal evaluation) and what is taken into account (strategies, the needs of society, etc.)?*
- *How/to what extent are students themselves involved in the development of the content of their studies?*
- *Please evaluate a) whether the study programme remains current and consistent with developments in society (labour market, digital technologies, etc.), and b) whether the content and objectives of the study programme are in accordance with each other?*
- *Do the content and the delivery of the programme correspond to the European Qualifications Framework (EQF)?*
- *How is coherence of the study programme ensured, i.e., logical sequence and coherence of courses? How are substantial overlaps between courses avoided? How is it ensured that the teaching staff is aware of the content and outputs of their colleagues' work within the same study programme?*
- *How does the study programme support development of the learners' general competencies (including digital literacy, foreign language skills, entrepreneurship, communication and teamwork skills)?*
- *What are the scope and objectives of the foundation courses in the study programme (where appropriate)? What are the pass rates?*
- *How long does it take a student on average to graduate? Is the graduation rate for the study programme analogous to other European programmes with similar content? What is the pass rate per course/semester?*
- ***How is it ensured that the actual student workload is in accordance with the workload expressed by ECTS?***
- *What are the opportunities for international students to participate in the study programme (courses/modules taught in a foreign language)?*
- *Is information related to the programme of study publicly available?*
- *How is the HEI evaluating the success of its graduates in the labor market? What is the feedback from graduates of the study programme on their employment and/or continuation of studies?*
- *Have the results of student feedback been analysed and taken into account, and how (e.g., when planning in-service training for the teaching staff)?*
- *What are the reasons for dropping out (voluntary withdrawal)? What has been done to reduce the number of such students?*

Findings
A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

1.1   Policy for quality assurance

The B.Sc. in Biomedical Sciences is a programme of the Department of Life Sciences of the School of Sciences that operates as a face-to-face, 4 years, 240 ECTS English language programme since 2017. The aim of the programme is the association of Biology with human health and disease with special emphasis on the mechanisms governing normal human homeostasis as well as pathobiology of human diseases.

The programme has adopted a policy for quality assurance which, although not publicly available at least in the website, has a formal status, it is in line with the CYQAA (Cyprus Agency of Quality Assurance and Accreditation in Higher Education) and aims to ensure quality, academic integrity and freedom and to support teaching, administrative staff, students and external stakeholders. In addition to the periodical External Evaluation procedure which is a prerequisite for the Institution's and the programme's accreditation, the programme has incorporated a periodical Internal Evaluation procedure according to the EUC policy that implicates the University Mangers, the Faculty Members, the Administrative Staff, the Students and Alumni as well as other related Stakeholders and external experts invited by the programme. The latest Programme Evaluation Review (PER) document was the main source for the evaluation procedure of the present external evaluation committee. The committee feels however, that a more updated and upfront provided version of the PER and the related documents would have been more helpful for the evaluation procedure.

1.2   Design, approval, on-going monitoring and review

The programme of the study in general has well defined objectives and learning outcomes in line with the purpose of higher education of the Council of Europe, and the number of assigned ECTS correspond to the students' workload. The ERASMUS collaborations that the Institution and the programme have established ensure further that the actual student workload is in accordance with the workload expressed by ECTS. Furthermore, the recognition of the courses and ECTS of the 3 first semesters during an internal transfer procedure of students from the current programme to the EUC School of Medicine, further ensures the reasonable correspondence between credits and workload per course.

Teaching is based on the permanent staff but also it benefits from external experts that largely contribute to the teaching courses as well as supervisors or co-supervisors in practical courses and experimental Thesis. The Programme Committee should examine whether the ratio between the permanent staff and part-time staff is in accordance with the national regulations. It was clear during the presentations and staff interviews that the teaching staff is research oriented and this is anticipated to have a positive impact in the incorporation of recent research developments in the teaching content.

The programme includes practical placement and given that the EUC has established official collaborations with local and foreign institutions the committee strongly recommends the programme to arrange the practical placement in places that give opportunities for research.

The general structure of the programme has been built based on the continuous evaluation process but also on the basis of the previous external evaluation report Therefore, compared to the initial structure, a practical placement in

the 7th semester, a lab-based Thesis in the 8th semester were incorporated as well as some important core course such as Bioinformatics and System Biology following the previous external evaluation. It seems that the programme is periodically reviewed based on the internal and external evaluation procedures and by seriously taking into account the students evaluation report which is an active and ongoing procedure. The teachers have tried hard and succeeded an exceptionally high students' evaluation rate (approximately 70% of the students participate in the evaluation procedure). The students are also actively involved in the development of the content of their studies by selecting places and topics of their placement and Thesis, respectively, by having the opportunity to get elective courses from all parts of the University and by having the opportunity to participate in exchange programmes such as Erasmus.

1.3   Public information

Regarding the public information related to the programme, in addition to what is presented in the website and the dissemination policies developed by the EUC, a Biomedical Science Society has been established with the contribution of the current and past students of the programme aiming to raise awareness of the Biomedical Sciences field and to promote the programme to the public. This initiative gives opportunities to disseminate the programme's content in the public but also, gives opportunities to organise and participate in related academic and research activities and expand the knowledge and training capabilities.

1.4   Information management

According to the regulations, the Biomedical Sciences Programme has a Coordinator, Dr Vasiliki Gkretsi, Associate Professor of Cellular and Molecular Pathology who is a full-time staff for the programme. According to the students interviews and the committee's impression, the Coordinator has a high degree of dedication and has a close and efficient communication with the students highly contributing to the quality of the programme. During the Evaluation procedure the coordinator of the programme presented and provided data related to the profile of the student population as well as with data regarding the duration of the studies, drop-out rates, learning resources, and career paths, among others. It seems that the number of new students is gradually increasing following the end of the covid pandemic and the enrolment has been largely increased during the last academic year (2022-2023: 31 new students). The drop-out rate has been approximately 15% during the academic years 2020-2021 and 2021-2022 and none during the last academic year. The Coordinator claims that the majority of drop-outs are related to the successful transfer of students to the School of Medicine after completing 3 semesters according to the internal regulations; very rare students stop their studies due to problematic academic performance due to existence of effective support mechanisms for those with difficulties. Given that the programme is relatively new, the establishment of an Alumni society is recommended in order to have longitudinal information regarding the career and employment path of the students.

Although the study programme remains current and consistent with developments in society and science, the committee believes that further improvements can be made to include modern concepts in biomedicine, such as the human microbiome and its implications, precision medicine and health, proactive aging and related regenerative medicine. Further recommendations for improvement are given below.

Strengths
A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The teaching staff is research oriented and this fact is anticipated to have a positive impact in the incorporation of recent research developments in the teaching.

The success of the programme lies strongly on the strength of the programme's coordinator who is very closely and efficiently collaborates with the students, something which was emphasized by the interviewed students.

The programme includes practical placement for the students of the 7th semester that gives opportunities for hands-on experience which is very important for a Biomedical Sciences programme.

The establishment of the Biomedical Science Society with the contribution of the current and past students of the programme contributes to the extroversion of the Programme while also gives opportunities and expand students' knowledge, training, and employment capabilities.

The programme has managed during the last Academic Year to significantly increase the new enrolments (31) and to dramatically decrease the drop-outs (0).

The vast majority of the graduate students continue with M.Sc. studies not only in the same University but also in local public and foreign Institutions. This was the case for all interviewed students during the current evaluation.

Areas of improvement and recommendations
A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

Despite the dedicated and successful coordination by the current Coordinator, the committee recommends a formal appointment of a co-cordinator to minimize the risk in case the coordinator is not available for some periods of time.

Although the study programme remains current and consistent with developments in society and science, the committee believes that further improvements can be made to include modern concepts in biomedicine, including courses on human microbiome and its implications, precision medicine and health, and proactive aging and related regenerative medicine.

Following the previous External Evaluation, the Programme has included practical placement for the students of the 7th semester. Although this is a great improvement, the current committee strongly suggests that a placement in laboratories that give opportunities for research will result in further improvement of the curriculum.

Despite the participation of a number of part-time external collaborators mainly for teaching, Visiting Professors of highly recognized academic standards have not been recruited in the programme. Such a recruitment will contribute not only to the teaching but also to the research activities of the programme and will enhance the opportunities of the students and the Faculty. The academic staff has to take advantage of the established collaborations between the EUC and foreign Institutions to identify potential high-level Visiting Professors from the field of Biomedical Sciences.

Although the last academic year the new enrolments increased and the drop-outs dramatically decreased, the observation that a number of students have been successfully transferred in the School of Medicine in the previous years, according to the internal regulations and policies, rises a thread for the long-term sustainability of the

programme. The Programme should develop policies such engagement of students in exchange programmes and their involvement in high-level research projects during their placement and Thesis that will contribute to their high appreciation of the significance of their studies in the Biomedical Sciences programme.

The establishment of a well organised alumni society will provide longitudinal information for the career and employment path of the students post-graduation, which is a pivotal quality index for any academic programme.

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

Sub-area		*Non-compliant/* *Partially Compliant/Compliant*
1.1	Policy for quality assurance	Compliant
1.2	Design, approval, on-going monitoring and review	Compliant
1.3	Public information	Compliant
1.4	Information management	Compliant

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

> ### Sub-areas
> **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

Standards

- *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

Standards
- *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 the 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.*

You may also consider the following questions:

- *How is it monitored that the teaching staff base their teaching and assessment methods on objectives and intended learning outcomes? Provide samples of examination papers (if available).*
- *How are students' different abilities, learning needs and learning opportunities taken into consideration when conducting educational activities?*
- *How is the development of students' general competencies (including digital skills) supported in educational activities?*
- *How is it ensured that innovative teaching methods, learning environments and learning aids that support learning are diverse and used in educational activities?*
- *Is the teaching staff using new technology in order to make the teaching process more effective?*
- *How is it ensured that theory and practice are interconnected in teaching and learning?*
- *How is practical training organised (finding practical training positions, guidelines for practical training, supervision, reporting, feedback, etc.)? What role does practical training have in achieving the objectives of the study programme? What is student feedback on the content and arrangement of practical training?*
- ***Are students actively involved in research? How is student involvement in research set up?***
- *How is supervision of student research papers (seminar papers, projects, theses, etc.) organised?*
- ***Do students' assessments correspond to the European Qualifications Framework (EQF)?***
- *How are the assessment methods chosen and to what extent do students get supportive feedback on their academic progress during their studies?*
- *How is the objectivity and relevance of student assessment ensured (assessment of the degree of achievement of the intended learning outcomes)?*

Findings
A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

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

Both the extensive Application for external evaluation document, describing the official layout for the 4 years bachelor Biomedical Sciences course, and the information presented during the site visit on Monday 11-07-2023 was clear and followed a logical structure. Most relevant courses are present, and they include a good mixture of theoretical topics together with relevant practical skills training. To ensure that the courses given are and remain up-to-date, the teaching staff themselves are still doing internationally competitive research. The students are encouraged to provide feedback both during courses as well as by means of a course evaluations. The turnout of such evaluations can be low is the personal experience of committee members, and they were therefore happily surprised that, by providing a clear and short tutorial how to provide these evaluations, the turnout of these evaluations was more than 70% of the students. One of the reasons for this high turnout is the good and intensive relationship the students have with the teaching staff, which came to the front both during the interview with teaching staff members and with students. The students were especially happy with the frequency with which they could contact teaching staff and they felt that they were heard. Finally, more official procedures for dealing with students' complaints appear to be in place.

The students had a few suggestions concerning overlap of certain courses, placements, the lack of a systems biology and bioinformatics master track, and the committee has a few recommendations concerning this and some course topics that will be discussed under "Areas of improvement and recommendations", below.

The committee was pleased to learn of the Biomedical Science Society initiative that was setup by the students themselves. The aims of this society is to raise awareness of the Biomedical Sciences (BMS) and participate in academic/research activities through conferences, symposia, and site visits, to give students the opportunity to meet professionals in the field and to support new BMS students.

2.2 Practical training

Many courses are comprised of both theoretical and practical training elements, which is common practice in biomedical sciences teaching. The committee noted that the practical training is fragmented into short 2 to 3 hour modules and this does not reflect the reality of most biomedical experiments. The committee would recommend to try to combined the short practical trainings in full day training courses so that the students obtain a realistic experience in performing molecular biology experimentation.

Practical skills training is crucial to train students in biomedical scientists. A short research project, in which students join a research lab and obtain hands-on lab experience, is essential to complete basic practical skills training. The students complained that the time for these Thesis II projects is insufficient and hardly covers 3 months of actual lab work. Considering the fact that they still have to follow other courses during their Thesis project, the committee feels that there is insufficient time dedicated to Thesis II research projects, which the committee feels should comprise minimally 3 months full time practical work.

2.3 Student assessment

During the evaluation, the committee has not come across any issues regarding unfair or problematic assessments of students.

Strengths
A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

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

The courses in this 4 years bachelor Biomedical Science programme provide an excellent and comprehensive training in biomedical sciences.

There is a very good and strong relationship and communication between teaching staff and students.

The students feel heard.

The teaching staff is enthusiastic about the students.

Good feedback systems are in place.

The teaching staff is enthusiastic about research and in general still perform competitive research and publish papers in peer-reviewed journals.

Biomedical Science Society initiative setup by the students.

2.2 Practical training

The lab space and equipment is in place necessary to perform the main molecular biology experiments.

The teaching staff is still doing research themselves and are therefore up-to-date when it comes to practical training.

2.3 Student assessment

There were no serious complains from students or issues raised during the interview with other members of the course and the University, indicating that adequate measures are in place to deal with this.

Areas of improvement and recommendations
A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

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

During the interview, the students mentioned that there is an overlap between anatomy and physiology I and II, and suggested to combine these courses. The committee recommends that the course leadership looks into this.

Based on the previous external evaluation the course has been enriched with bioinformatics and systems biology components. However, the committee strongly recommend to strengthen these components with entrance level programming in R and Python, as these programming skills are crucial to deal with the large omics datasets that are increasingly dominating the biomedical research domains. In addition, the committee would like to suggest to include in the programme the following modern concepts in biomedicine: (i) the human microbiome and its implications, (ii) precision medicine and health, and (iii) proactive aging and related regenerative medicine. To accommodate these concepts, the committee suggests to collaborate with e.g. the School of Medicine and the Department of Computer Science and Engineering.

During the interview of students the committee was informed that 2 students decided to do their masters somewhere else because there is no M.Sc. course in systems biology and bioinformatics. The committee recommends the course leaders and the University to investigate the opportunity of a jointed master programme between the School of Medicine, Department of Computer Science and Engineering or Life Sciences, to provide for this need.

One student indicated that she was unsure whether a good placement could be arranged, but during the interview with the course leadership it turned out that this was based on a miscommunication. Therefore, the committee recommends to communicate the procedure for placement better with the students.

Finally, the committee recommends to include an introductory course on how to implementation, registration and use of animal models in biomedical research.

2.2 Practical training

The committee recommends to defragment the practical training during the courses so that the students can perform realistic day-long experiments.

The committee recommends that the Thesis II research project comprises at least 3 months fulltime lab work.

During the interview with the course leaders it became clear that students can chose a literature study for their Thesis II project. The committee strongly recommends against this, because lab training is crucial in biomedical training and cannot be replaced by a literature study. Moreover, literature studies are already part of other courses in the curriculum.

2.3 Student assessment

The committee has no specific recommendation concerning student assessment.

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

Sub-area		Non-compliant/ Partially Compliant/Compliant
2.1	Process of teaching and learning and student-centred teaching methodology	Compliant
2.2	Practical training	Partially compliant
2.3	Student assessment	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

Standards

- *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 programme, 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 programme.*

3.2 Teaching staff number and status

Standards

- *The number of the teaching staff is adequate to support the programme of study.*
- *The teaching staff status (rank, full/part time) is appropriate to offer a quality programme of study.*
- *Visiting staff number does not exceed the number of the permanent staff.*

3.3 Synergies of teaching and research

Standards

- *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.*

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- *Teaching staff studies and publications are closely related to the programme's courses.*
- *The allocation of teaching hours compared to the time for research activity is appropriate.*

You may also consider the following questions:

- *How are the members of the teaching staff supported with regard to the development of their teaching skills? How is feedback given to members of the teaching staff regarding their teaching results and teaching skills?*
- *How is the teaching performance assessed? How does their teaching performance affect their remuneration, evaluation and/or selection?*
- *Is teaching connected with research?*
- *Does the HEI involve visiting teaching staff from other HEIs in Cyprus and abroad?*
- *What is the number, workload, qualifications and status of the teaching staff (rank, full/part timers)?*
- *Is student evaluation conducted on the teaching staff? If yes, have the results of student feedback been analysed and taken into account, and how (e.g., when planning in-service training for the teaching staff)?*

Findings
A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

3.1 Teaching staff recruitment and development

At the time of the first/previous external inspection, an issue raised concerned the fact that some members of the teaching staff did not have backgrounds relevant for the topics they teach. This does not seem to be a major problem any longer, although more clinically active teachers need to be engaged to give the students a better background to the mechanistic studies of biomedical challenges with the goal to find future therapeutic targets and develop new classes of drugs. Otherwise, it is clear to this committee that the School/Department has improved considerably on the competence fit between the staff CVs and what is actually being taught at this programme. According to the oral presentations given during the site visit, at least 24 teachers are involved in the programme. Even if the CVs of all of them were not fully up-to-date and some not available for inspection and even if we met with only some of them (but many of the most influential and involved in the programme), the committee's impression is that teachers have been recruited/retained in a way which is very favourable for this B.Sc. programme. The coordinator and another teacher (focussed on immunology) have the highest degree of involvement in the programme and their CVs are certainly no exception but show dedication to the field of study at a level well suited for the programme.

The procedures for announcing new positions and recruiting new members of staff appear clear and transparent as they should be. This applies also when part-time staff is recruited externally to support the programme with teachers on temporary contracts for each semester. When asked, gender equality issues or other similar bias was not raised as a problem in this context by the teaching staff and appointments are regarded as fair.

In general, staff qualifications are adequate to achieve the objectives and learning outcomes of the B.Sc. programme, and to ensure that quality and sustainability of the teaching and learning are maintained or even developed. However, much of this is not only up to formal qualifications but rather personal interest, ambition and drive towards improvement. There is a system in place for competence development of the staff when it comes to pedagogic skills and techniques and everyone is encouraged to go regularly to such seminars and workshops but it was a bit unclear how this is followed up if somebody actually do not take part. It was also a bit unclear how important teaching and pedagogic development is for promotion. The consensus seemed to be that research is more important for promotion but teaching is certainly part of the evaluation done.

Much of the pedagogical development work done by teachers appears to be on their own initiative for single courses. More encouragement of the whole team behind the B.Sc. programme could certainly improve this further so that it becomes a natural thing to try new, innovative and student-centered learning techniques. Of particular note, this programme was very quick to move to digital teaching platforms. The committee met a couple of the part-time teachers involved in the programme, often responsible for certain elements of the programme/courses. They appeared to be an appreciated and well-integrated part of the teaching staff and also try and take part in pedagogic and other competence development which is also offered for them. It was not obvious to this committee that visiting teachers are used for this programme. However, as is discussed further below, the committee see a big need for a clearer medical presence in a biomedicine programme even if the focus is on science. This could hopefully be solved quite easily by involving guest teachers with full-time positions at the School of Medicine. This would help the current School of Sciences teachers to focus on their main areas of expertise while the course would gain in credibility if "real" clinicians who see the patients with the disease that the programme students will later discuss the pathobiology of.

3.2 Teaching staff number and status

It is the opinion of the committee that the number of teaching staff is adequate to support the quality of the B.Sc. programme under evaluation. However, in accordance with CYQAA guidelines, it is deemed essential to maintain a composition of the teacher staff so that it consists of at least 70% full-time teachers, while it is possible to incorporate a 30% proportion of equally competent part-time professionals. So far, we have not received information to assure that this is indeed the case for the B.Sc. programme under evaluation. In fact, even if visiting staff number does not exceed the number of the permanent staff (as mentioned in the standards provided above), we notice that 9 of 24 teachers (37.5%) are not full-time employees of the European University of Cyprus. This appears to violate the law that regulates the activities of private universities in Cyprus.

3.3 Synergies of teaching and research

In general, the committee was satisfied with the level and degree of research activities of the teachers active in this programme. It was apparent that a "points system" was put in place so that those who deliver research output can actually make a reasonable share of their time available for research activities. However, the plans to expand the number of students may interfere with and threaten this system, unless staffing follows the number of students.

Much of the research done nicely overlaps the broad field of biomedical science, the field of study for the B.Sc. programme under scrutiny here. We also noted that a few, very active faculty members hold fairly substantial research grants and have a continuous flow of research production. This is of course good for the whole Department and School but we noticed that the same investigators often had key roles in the education system as well, which means there is a threat to the B.Sc. programme if they either leave the key teaching positions or may be recruited elsewhere. This

potential risk could be somewhat alleviated by re-introducing a role as deputy programme coordinator and will also protect the students from unexpected sick leaves and sabbaticals etc.

At the same time, it seemed difficult to obtain minor seeding grants for teachers who tried to start research up or to keep it going at a lower rate in parallel with their teaching tasks. From the many national and international collaborative partners presented and also multiple collaborative grants, the teaching staff appears to collaborate quite well with external partners in the fields of teaching. More could probably be done when it comes to fruitful collaborations between other parts of the School or other Schools (mainly medicine) at the local University. We also noted some collaboration with local hospitals and clinical practitioners in the fields the courses cover (mainly cancer-related) but there appears to be room for improvement with a potential for better research and more grants. It should be said that the Department's focus on cancer biology (and the related M.Sc. and Ph.D. programmes) has proven to be quite a success story. At the same time the B.Sc. programme is much broader than that and individual teachers may well need to continue to expand their ambitions and research plans also in other directions. This is particularly important to consider when the leadership has to take into account the risk that recruitment of a single Professor or Associate Professor at the Department should not be able to threaten a whole teaching programme.

Strengths
A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The School/Department should be very happy to have recruited some leading figures in the field who not only are good scientists with the capacity to attract significant research grants as principal investigators and/or coordinators of joint project grants but also have talent for teaching and are popular and appreciated among the students for their engagement and enthusiasm. Whilst the latter applies to many, if not all, of the teaching staff on the B.Sc. programme, it is particularly lucky that a few selected teachers both take on leading roles in research, administrative leadership, course management and teaching. This provides the right atmosphere for junior staff to look up to and try to achieve in the long run.

Some teachers have tried to implement newer pedagogic models to engage students and involve them more, e.g. the flipped classroom approach.

Thanks to the low number of students (so far) on this programme, teachers have been able to engage and supervise in a very personal way, which often creates a feeling of togetherness and contagious enthusiasm among the students. It is clear that many of the students who have chosen to continue their studies on a M.Sc. programme at the same University have done so thanks to close links to the teachers and their research projects.

The Department has chosen to focus on cancer biology and we think that this is a strength since it stimulates collaborations and sharing of resources and increases competitive strength.

Joint efforts between the University/School management and individual teachers/investigators have resulted in high standards of premises for both research and educational activities. By sharing up-to-date research infrastructure between research and teaching (to some degree; not completely), the biomedical field becomes more cost-efficient locally. With this as a model, the committee sees a potential for further sharing within the University so that the different Schools work closer together. This applies both to research infrastructure and teachers. A few of the teachers also teach at the School of Medicine but this can no doubt be increased. Conversely, the B.Sc. in Biomedical Science programme would benefit if an exchange could be introduced by which clinically active teachers from the School of Medicine could be part of certain courses to increase understanding of the patient/symptom/therapy

perspective on the biomedical science studied, especially since much focus is put on mechanisms that can lead to discovery of therapeutic targets with the long-term purpose to develop pharmaceutical interventions.

Finally, it was noted that some students have been able to publish their thesis essays in scientific journals. Teachers should encourage this good practice since it benefits the School twice and (at best) contributes to citations as reviews tend to do, which will become more important when ranking systems will soon focus more on quality than quantity.

Areas of improvement and recommendations
A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

Overall, the teacher situation for this B.Sc. programme is more or less under control with one major exception (see first point under 3.2 below), as can be deduced from the above "findings" and "strengths" sections. However, further improvement in general is certainly possible and is in essence the purpose of this inspection. Accordingly, the committee has identified a few but important problem areas that needs to be dealt with also regarding the Teaching staff. Most of the background for these areas can be found in the Findings sections 3.1-3.3 above so the below will focus mainly on the recommendations for the Teaching staff (ESG 1.5).

3.1 Teaching staff recruitment and development
* A system to follow up and award competence development within the pedagogic field should be considered in order to encourage systematic and continuous improvement of teaching for the students.
* Create incentives to test and implement new pedagogic models in the B.Sc. programme. This also has the potential to lead to scientific publications within the field of pedagogic development in biomedical education.

3.2 Teaching staff number and status
* The Dean of the School and Department Head must work together with the Programme Coordinator to ensure that the University follows the regulations regarding full-time vs. part-time teaching staff. At this point, it appears to this committee that this is not the case for the B.Sc. in Biomedical Science programme. If this is indeed the case, this must be dealt with swiftly and effectively. A suggestion could be to employ a dedicated bioinformatics teacher as this part needs to be expanded to meet the requirements on scientists of the future.
*Another firm recommendation is to involve teaching staff from other parts of the University, especially from the School of Medicine (for clinical background) and the Department of Computer Science and Engineering (e.g. for bioinformatics, programming, Excel skills etc) to broaden the scope covered by the teachers' team.

3.3 Synergies of teaching and research
* Teaching skills and pedagogic merits should be as important as research when it comes to promotions and annual reviews. Staff reads about this in documents but do not experience it in reality.
* Now that the publication numbers appear to be increasing for the University it is time to turn the focus from quantity to the quality/impact/citations of the studies published by the teaching staff. This will be in line with changing recommendations in the ranking systems of the future. The committee strongly believe it to be important for the credibility of the B.Sc. programme that the teaching staff continues to improve the level at which they perform competitive research in the field of biomedical science.
* The formal role of Deputy Programme Coordinator should be re-introduced to decrease the risk for the programme when key personnel divide their time between research, teaching and course administration (this point also applies to the two above headings 3.1 and 3.2).

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

Sub-area		Non-compliant/ Partially Compliant/Compliant
3.1	Teaching staff recruitment and development	Compliant
3.2	Teaching staff number and status	Partially compliant
3.3	Synergies of teaching and research	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

Standards

- *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

Standards

- *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

Standards

- *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*

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4.4 Student certification

Standards

- *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.*

You may also consider the following questions:

- *Are the admission requirements for the study programme appropriate? How is the students' prior preparation/education assessed (including the level of international students, for example)?*
- *How is the procedure of recognition for prior learning and work experience ensured, including recognition of study results acquired at foreign higher education institutions?*
- *Is the certification of the HEI accompanied by a diploma supplement, which is in line with European and international standards?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

4. **Student admission, processes and criteria, student progression, recognition and certification**

The B.Sc. in Biomedical Sciences is a programme of the Department of Life Sciences of the School of Sciences that operates as a face-to-face, 4 years, 240 ECTS English language programme since 2017. The aim of the programme is the association of Biology with human health and disease with special emphasis on the mechanisms governing normal human homeostasis as well as pathobiology of human diseases. Together with the certification of the HEI a Diploma Supplement is given at the graduation in line with the European and International Standards.

All the procedures regarding processes and criteria for student admission, progression, recognition and evaluation are generally clear and well described and presented. The programme is interested for applicants with a solid high school record and sufficient knowledge of the English language. An observation however is that a minimum grade of 17/20 at high school diploma is desirable and highly recommended but given that the students are coming from different countries and educational environments this prerequisite should be translated and homogenized.

Given that the programme is Biomedical Sciences, emphasis is correctly given to a strong background in Biology.

The official language of the Biomedical Sciences programme is English and was clear that the English language is kept even if the only students are Cypriots or Greeks. Thus, high level of English fluency is needed for admission.

Regulations regarding student recognition of prior learning and work experience are pre-defined and a Transfer Credit Evaluation Policy are available and clear. Although it is not written in the Application Evaluation text, the students of the programme after 3 semesters of attendance can apply for admission in the School of Medicine. This is of course a challenge for the programme that helps to retain high standards of teaching but might also be a threat for increased drop-outs. Specifically, some applicants may consider the Biomedical Sciences programme as a step for transfer to the School of Medicine.

Policies for regular and effective communication between the teaching personnel and the students were described. The Committee had the chance to evaluate examples of students' assignments, exams and Thesis documents and Lab reports and found them to correspond with what is described in the syllabus showing a good performance status of the students. The fact that a number of graduates have been accepted for M.Sc. studies mostly in local Public Universities and Institutions but also abroad (University of Glasgow with a scholarship) is in accordance with the good performance status of the students. However, support mechanisms for students with problematic academic performance were described by the Coordinator and the interviewed teaching staff.

The relatively small number of students but also the dedication of the academic staff has resulted in an excellent and close communication and collaboration between students and tutors. This was especially emphasized by the students who participated in the evaluation process but it is also reflected by the fact that the majority of the graduated students (at least those we met) continue with a M.Sc. in the same University in the field of cancer biology which is a focus field for the programme.

The programme has developed collaborations (including Erasmus mobility programmes) with foreign and local Institutions and the students have the opportunity for placement and Thesis in a scientific environment beyond that of the EUC. Thus, two of the students who we met have applied for local and foreign Universities, respectively.

Strengths
A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

Emphasis is given on a strong background on Biology, which is correct for a Biomedical Sciences programme. In the event in which applicants are exceptionally good but have not taken advanced classes in Biology, the University offers Foundation course on Biology to give the opportunity to good applicants to enter the programme.

According to the presentation of the programme's coordinator, the programme has developed international collaborations mainly through Erasmus and has accepted students through exchanges from Birmingham City University (UK), Universita degli Studi di Palermo (Italy), Institut National Universitaire Champollion (France).

The staff has achieved to implicate students in the courses' evaluation procedure and the feedback is more than 70% according to the presentation of the Coordinator and the information given by the interviewed students. The committee has the strong feeling that the staff is seriously taking into consideration the students' feedback for the improvement of the curriculum and the students highly appreciate this fact.

The capability to choose free elective courses from other B.Sc. programmes of the University does not only solve issues related to the capacity of the Elective Courses of the Biomedical Sciences programme but also contributes to a self-directed education of the students.

The relatively small class sizes have had a noticeable and positive influence on the communication and collaboration between students and their tutors. It is evident that the suggestions they provide in their semester evaluations, are at least partially, implemented.

Areas of improvement and recommendations
A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

Although it was not a general a consensus among the students who were interviewed, the committee recommends that the course leadership may consider more coordination or even integration between the courses on anatomy and physiology I and II, since it appears to be considerable overlap.

Despite the very good communication between teachers and students, there was some uncertainties about the placement and electives, that could be easily been solved with proactive or more efficient communications on these matters.

Concerns were raised by the students regarding the demanding or "overwhelming" curriculum of clinical immunology, prompting the suggestion for a foundational course. Furthermore, students emphasized the importance of introducing programming as a vital skill for those interested in bioinformatics.

Another issue that emerged was help with the use of Excel in the first year to optimize its application during the whole programme, e.g. during academic skills training.

The committee thinks that lab experience is vital in a programme like this. However, it is apparently possible to do a non-lab based Thesis II project. The committee strongly recommends to abandon this and make lab-based research obligatory, since literature review is already a part of many of the other courses. This recommendation is in line with the course purpose and objectives in the Thesis II syllabus, which really does not appear to allow for a literature-only Thesis II project. This would also abolish the discrepancy between the course purpose and objectives and learning outcomes described in the syllabus. In addition, the actual time in the lab seems insufficient. The Department indicated that the research project covers 4 months of practical work in the laboratory, but the students indicated that this is considerably shorter in reality. In fact, both Thesis I and II run in parallel with 4 other courses per semester with equal ECTS values, with further reduces the substantial research project.

A number of students emphasized the importance of possibility to perform a introducing programming as a vital skill for those interested in bioinformatics. The committee strongly recommends to strengthen the bioinformatics course by including entrance level programming in R and Python. In addition, we would suggest to include modern concepts in biomedicine, including the human microbiome and its implications, precision medicine and health, and proactive aging and related regenerative medicine. This provides ample opportunities for deeper interactions with e.g. the School of Medicine and the Department of Computer Sciences and Engineering. The committee also noted a relative absence of an introduction to the use of animal models in biomedical research.

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

Sub-area		Non-compliant/ Partially Compliant/Compliant
4.1	Student admission, processes and criteria	Compliant
4.2	Student progression	Compliant
4.3	Student recognition	Compliant
4.4	Student certification	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

Standards

- *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 programme.*
- *Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.).*
- *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

Standards

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

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 programme.*
- *Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.).*

- *All resources are fit for purpose and students are informed about the services available to them.*

5.4 Student support

Standards

- *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.*

You may also consider the following questions:

- *Evaluate the supply of teaching materials and equipment (including teaching labs, expendable materials, etc.), the condition of classrooms, adequacy of financial resources to conduct the study programme and achieve its objectives. What needs to be supplemented/ improved?*
- *What is the feedback from the teaching staff on the availability of teaching materials, classrooms, etc.?*
- *Are the resources in accordance with actual (changing) needs and contemporary requirements? How is the effectiveness of using resources ensured?*
- *What are the resource-related trends and future risks (risks arising from changing numbers of students, obsolescence of teaching equipment, etc.)? How are these trends taken into account and how are the risks mitigated?*
- *Evaluate student feedback on support services. Based on student feedback, which support services (including information flow, counselling) need further development?*
- *How is student learning within the standard period of study supported (student counselling, flexibility of the study programme, etc.)?*
- *How students' special needs are considered (different capabilities, different levels of academic preparation, special needs due to physical disabilities, etc.)?*
- *How is student mobility being supported?*

Findings
A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

5.1 Teaching and Learning resources

From the interviews and the tour through the Department buildings the committee got the impression that all teaching and learning resources are available, also under challenging circumstances. A point in case was the quick switch to online learning modules when the covid pandemic made physical courses impossible. The University has been working on modern e-learning/remote-courses well before the pandemic hit, and could therefore quickly change gears and provide the students with good online courses.

During the interview with the teaching staff, it became clear that several of them have tried present-day pedagogic forms, including Flipped classroom and Team-based learning, and the University provides technical and educational support for this. However, the committee feels that a more systematic implementation and evaluation of these teaching forms could benefit the teachers and possibly even further improve training courses.

The University has the intention to increase the number of students. One of the strengths of the current programme is the advantageous ratio of students versus staff that ensures an intense contact between them. When more students are taken on, the course leaders should make sure that this is not at the expense of the good staff-student interactions.

5.2 Physical resources

During the physical tour, the committee has seen lecture rooms, study rooms, teaching laboratories, research laboratories, and the library and they were impressed. The buildings look clean and modern and the lecture and study rooms were spacious and numerous. Both the teaching and research laboratories were adequately equipped and also spacious. The library is well organized with sufficient access to books and online literature, and houses many study corners.

During the interview some students mentioned that they could not do all the experiments they would have liked to do because of a lack of financial resources. The committee considers this problematic.

Certain expensive and infrastructure intensive facilities, including FACS and animal experiments, are not available on-campus, however, in close proximity there are e.g. the Institute of Neurology and Genetics as well as the Karaiskakio Foundation where these resources are available under agreements for a minimal fee.

5.3 Human support resources

From the interviews with administrators, teaching and support staff, and information from the Application for evaluation document, the committee got the impression of a well-organized University that is fully aware of the needs of students and the difficulties students, and staff, can occasionally encounter. Mentoring schemes are in place, but also psychological support. In addition, the University tries to make life at the campus pleasant and inclusive.

5.4 Student support

The impression of the committee is that the student support is excellent. Firstly, all 11 students that joined the interview were very positive about the course, the teaching staff, and especially the programme coordinator Dr Vasiliki Gretsi, who was always available, and there were no complains related to other areas of student support. Secondly, the Application for evaluation document shows that there is adequate support for students with needs, as stipulated by the remit of the Committee for Students with Special Needs (CSSEN) who takes care of students with learning difficulties, hearing impairment, vision impairment, movement disabilities, psychological and emotional distress and with health problems.

Strengths
A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

5.1 Teaching and Learning resources

All the necessary teaching and learning resources are available.

The University is proficient in making and providing online courses/e-learning.

Experience and support for new pedagogic teaching forms is available.

There is ample qualified teaching staff available for the number of students. The relatively small classes assure a good and intensive contact between students and teaching staff, which is highly appreciated by the students.

5.2 Physical resources

The lecture and study rooms, teaching and research laboratories and library are spacious modern and clean.

The laboratories contain the right equipment to perform basic biomedical research (DNA, protein gels, western blot equipment, centrifuges, modern pipettes, incubators and much more).

The library is well equipped and has ample study corners.

5.3 Human support resources

The support staff seems clearly "involved" in trying to provide the students a good learning and living experience during their bachelors.

The teaching staff is very enthusiastic and are active in research.

5.4 Student support

The support for students at all levels, including extracurricular, social and sport activities are available. Importantly, support for students with needs is available and appears to be well organized.

Areas of improvement and recommendations
A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

5.1 Teaching and Learning resources

The committee recommends to apply a more systematic implementation and evaluation of modern pedagogic teaching forms by the staff.

An important strength is the ease with which students can contact and interact with the teaching staff. This should be cherished and maintained when student numbers are increasing.

5.2 Physical resources

There should be sufficient bench fees available for the students to perform at least 3 months of full-time practical research during their Thesis II research project. This is currently not always the case.

5.3 Human support resources

The human support resources appear to be excellent and the committee has no specific recommendations.

5.4 Student support

The student support appears to be excellent and the committee has no specific recommendations.

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

Sub-area		Non-compliant/ Partially Compliant/Compliant
5.1	Teaching and Learning resources	Compliant
5.2	Physical resources	Partially compliant
5.3	Human support resources	Compliant
5.4	Student support	Compliant

6. **Additional for doctoral programmes** *(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 programme, as well as how the selection procedures are made, are defined.*
- *The following requirements of the doctoral degree programme are analysed and published:*
    - *the stages of completion*
    - *the minimum and maximum time of completing the programme*
    - *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

Standards

- *Specific and clear guidelines for the writing of the proposal and the dissertation are set regarding:*
    - *the chapters that are contained*
    - *the system used for the presentation of each chapter, sub-chapters and bibliography*
    - *the minimum word limit*
    - *the binding, the cover page and the prologue pages, including the pages supporting the authenticity, originality and importance of the dissertation, as well as the reference to the committee for the final evaluation*
- *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:*
    - *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.*

You may also consider the following questions:

- *How is the scientific quality of the PhD thesis ensured?*
- *Is there a link between the doctoral programmes of study and the society? What is the value of the obtained degree outside academia and in the labour market?*
- *Can you please provide us with some dissertation samples?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

Not applicable.

Strengths
A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

Not applicable.

Areas of improvement and recommendations
A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

Not applicable.

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

Sub-area		Non-compliant/ Partially Compliant/Compliant
6.1	Selection criteria and requirements	Not applicable
6.2	Proposal and dissertation	Not applicable
6.3	Supervision and committees	Not applicable

D. Conclusions and final remarks

Please provide constructive conclusions and final remarks which may form the basis upon which improvements of the quality of the programme of study under review may be achieved, with emphasis on the correspondence with the EQF.

Based on the written and orally presented material, the external evaluation committee is of the opinion that the B.Sc. in Biomedical Science programme is generally of good quality, and that the responsible team has made considerable improvement since the previous external evaluation in 2016.

Focus on intertwined research-based teaching
The most valuable asset for the programme, apart from the students themselves, is the very enthusiastic, engaged and competent teacher group who also devote themselves to research in parallel to their teaching assignments. This is crucially important to form the basis for a research-based education. This particularly applies to a programme of this type, and the overall goal of the programme (according to slide 14 in the oral presentation by the programme coordinator) is to form the students into scientists of the future.

Until now, most of the research output, with some exceptions, has had a focus on quantity (number of publications) rather than quality (impact, citations etc). The committee feels that the timing is now right for the faculty and the Department as such to change this, in line with the changes that are about to happen in ranking systems worldwide. Incentives to publish better, not necessarily more, need to come from the management team at University, School and/or Department level.

The Department has chosen to focus on cancer biology and we think, given the number of staff available, that this is mostly a strength since it stimulates collaborations, sharing of knowledge and resources as well as increases the competitive edge of the environment.

Strengthen student supervision and support
The frequency of student feedback on the lectures is very high, and the students are very positive about the lectures and teachers in general. There is close contact between the students and the teachers, which is facilitated by the good staff:student ratio. We noted that this has resulted in long-term professional relationships through which students continue to M.Sc. programmes, thanks to the bonds formed between project/supervisor and students.

There were some issues in the beginning about the elective courses because of the low student numbers. This has now been solved by letting them select courses provided by other parts of the University.

The future plans of the University appear to be an expansion of student numbers for this and other programmes and specifically to attract more foreign students. This can pose risks, both to the interaction frequency and quality between students and staff, and the potentially decreasing time that the staff can dedicate to their research.

Finally, despite the fact there is a very good communication between teachers and students, there were some uncertainties about the placements and electives. This can easily be solved with proactive information on these matters.

Future-proof the programme content
Based on the previous external evaluation the course leadership has enriched the course with bioinformatics and systems biology parts. We would however strongly recommend further strengthening the bioinformatics course by including entrance level programming in R and Python. In addition, we would suggest to include modern concepts in

biomedicine, such as the human microbiome and its implications, precision medicine and health, as well as proactive aging and related regenerative medicine approaches. This will provide ample opportunities for deeper interactions with e.g. the School of Medicine and the Department of Computer Science and Engineering. The committee also noted a relative absence of an overview and introduction to the use of animal models in biomedical research, which should be included.

Related to this, there is currently no possibility to perform M.Sc. studies in bioinformatics/systems biology at this University, which in fact resulted in the loss of 2 out of the 9 students we met. They had to move elsewhere to perform their M.Sc. studies in the topic of their choice/interest, whereas they would have preferred to stay. A third student left to follow a M.Sc. programme in precision medicine elsewhere. These examples are likely to constitute only a tip of the iceberg. This raises again the question whether joint master programmes could be set up between the School of Medicine and other Departments in the School of Sciences, to cater to these students as their numbers may well increase over time.

Although there was not a consensus among the students that were interviewed, the committee recommends that the programme leadership considers more coordination or even integration between the courses on anatomy and physiology I and II, since there appears to be considerable overlap. Another issue that emerged was help with the use of Excel in the first year to optimize its application during the whole programme. This can be implemented e.g. during the academic skills training.

Secure teacher positions and pedagogic development
Considering the official regulations, the fraction of permanent staff must increase. This could be facilitated by sharing staff with other Departments and Schools within the University or by utilizing the services of Visiting Professors of high standard and with niche expertise that will benefit the students and the whole environment.

It may also be time to invest in a full-time position in bioinformatics or similar topic. This would also benefit future *in-silico* support to experimental *in-vitro* and *in-vivo* research.

The success of the programme relies strongly on the presence of a well-functioning programme coordinator (which is currently the case). Since formally there is nobody second in command right now, this poses a risk to the programme in case the coordinator would not be available for extended periods of time. Therefore, we recommend the formal appointment of a co-/deputy-/vice-coordinator of the programme.

We recommend to interact much closer with the School of Medicine (and to some degree also the Department of Computer Science and Engineering in the School of Sciences), both for teaching and teacher exchange, but also for research infrastructure and dual supervision of projects. This has the potential to foster joint interdisciplinary research.

Even though we noted that flipped class room, team-based learning and integrated teaching approaches have been tested by individual enthusiastic teachers, a continuous and more systematic development of newer pedagogic models used in the courses should be encouraged by the course leadership.

Increase the practical aspects of becoming a scientist
A key goal of the programme is to provide society with the scientists of the future. This requires strong education in different kinds of laboratory skills. Considering this, we would like to recommend the following:

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CYPRUS AGENCY OF QUALITY ASSURANCE AND ACCREDITATION IN HIGHER EDUCATION

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Make sure that practical courses are not split in (too short) 2-3 hour blocks but are combined into full days so that students can complete experiments as performed normally in real life. This will develop their trouble-shooting skills and simply make them better scientists.

The committee thinks that lab experience is vital in a programme like this. However, it is apparently possible to do a non-lab-based Thesis II project. The committee strongly recommends to abandon this practice and make lab-based research obligatory, since literature review is already a part of many of the other courses. This recommendation is in line with the course purpose and objectives in the Thesis II syllabus, which really does not appear to allow for a literature-only Thesis II project. This would also abolish the discrepancy between the course purpose and objectives and learning outcomes described in the syllabus.

In addition, the actual time in the lab seems insufficient. The Department indicated that the research project covers 4 months of practical work in the laboratory, but the students indicated that this is considerably shorter in reality. In fact, both Thesis I and II run in parallel with four other courses per semester with equal ECTS values, which further reduces the possibility to perform a substantial, thought-provoking and potentially even competitive research project.

Finally, the current funding is around 500 euros per student for the whole thesis research project. Based on their own experiences, the committee members feel that this is insufficient. In fact, there were some students who reported having been restricted in their experimental work due to a lack of fund for materials. A rule of thumb for modern biomedical science laboratory work is 500 euros per researcher per month. A doubling of the bench fee seems reasonable and financially doable considering the number of students. We also noted that this is also a problem for the master research projects, where students receive only 600 euros for their total bench fee costs. Although the M.Sc. programme is beyond the scope of this evaluation, the committee deems it necessary to increase the bench fee to allow the students to be able to perform competitive biomedical research as part of the thesis work.

The above suggestions to improve the hands-on experience and the research projects performed, has the potential to attract and retain students in the programme.

In summary, the B.Sc. in biomedical science programme has developed into an appreciated programme with increasing student cohorts and a very dedicated teacher team who stay in close contact with the student throughout the four years of study. The external evaluation committee see many strengths and examples of good practice in this programme. The implementation of the above recommendation will secure its validity when student cohorts become larger and more internationally diverse. In this way, the programme can be future-proofed and stay relevant, thereby enabling that the highly set goal to provide society with tomorrow's scientists is fully achieved.

E. Signatures of the EEC

Name	Signature
Prof. Dr. Martin L Olsson	
Prof. Dr. Helen Papadaki	
Prof. Dr. Leendert Hamoen	
Mr. Stephanos Hilides	

Date: 13 July 2023