

Doc. 300.1.2

Date: 9.6.2022

Higher Education Institution's Response

- Higher Education Institution: European University Cyprus
- Town: Nicosia
- Programme of study Name (Duration, ECTS, Cycle)

In Greek:

Βιολογία του Καρκίνου και Κλινική Ογκολογία (3 Έτη/180 ECTS, Διδακτορικό)

In English:

Cancer Biology and Clinical Oncology (3 years/180 ECTS, PhD)

- Language(s) of instruction: English
- Programme's status: New
- Concentrations (if any):

In Greek: Concentrations

In English: Concentrations



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 2021 [L.136(I)/2015 – L.132(I)/2021].

A. Guidelines on content and structure of the report

- *The Higher Education Institution (HEI) based on the External Evaluation Committee's (EEC's) evaluation report (Doc.300.1.1 or 300.1.1/2 or 300.1.1/3 or 300.1.1/4) must justify whether actions have been taken in improving the quality of the programme of study in each assessment area.*
- *In particular, under each assessment area, the HEI must respond on, without changing the format of the report:*
 - *the findings, strengths, areas of improvement and recommendations of the EEC*
 - *the conclusions and final remarks noted by the EEC*
- *The HEI's response must follow below the EEC's comments, which must be copied from the external evaluation report (Doc.300.1.1 or 300.1.1/2 or 300.1.1/3 or 300.1.1/4).*
- *In case of annexes, those should be attached and sent on a separate document.*

Introduction:

The Department of Life Sciences and Department of Medicine of European University Cyprus wish to express their sincere gratitude to the External Evaluation Committee (EEC) for the evaluation of the Interdepartmental doctoral program of study in Cancer Biology and Clinical Oncology (PhD).

It is with great pleasure that the members of the two Departments and Schools noted the positive feedback of the EEC and we appreciate its insightful recommendations, which provided us the opportunity to further improve the quality and implementation of the program.

In the following pages, we respond in detail to all recommendations for improvement suggested by the EEC and we provide all relevant information to explain the actions taken to ensure that the newly accredited program is of high quality.



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

Comments by the EEC:

Areas of improvement and recommendations

The design of the actual PhD programme and its supervision could be improve – please see details in item#6

Response by EUC:

We would like to thank the Committee for the insightful suggestions to improve the Ph.D.'s program structure and supervision. We have fully addressed these comments in section 6, below, where the recommendations have been detailed by the EEC.

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

Comments by the EEC:

Areas of improvement and recommendations

1. There are no plans to support students with childcare responsibilities
2. Regarding the practical training see more comments in item #6 describing the proposed PhD programme. In general, we suggest more flexibility for graduate students at the timing of courses and practical lab experience. We recommend, for the graduate courses, more emphasis on the individual learning needs – for example, access to courses and training that are not necessarily provided by the EUC (or the specific faculty in which the student is doing the MSc/PhD) but are important for the research the student performs. For example, computer informatic skills for a student in the cancer biology programme, flow cytometry, proteomics, etc.

Response by EUC:

1. While the University does not yet have childcare facilities within the campus, we understand that Ph.D. students, especially those with young children, may need support. Therefore, we provide maximum flexibility in the working schedule of our Ph.D. students, allowing them to complete their research work at their own pace and time, an approach which is fully compatible with EUC's student-centered philosophy. In this way, they can better cope with their family obligations, e.g. drop-off/pick-up children from school, doctor visits, study support, etc. In addition, schedule of courses is negotiated with students and the classes are allocated at times that are convenient to them. Our current experience with other PhD programs indicates that most PhD students prefer evening teaching sessions.
2. Based on the overall recommendations by the EEC, we have now re-structured the Ph.D. coursework and ECTS allocation per semester as follows:

A/ A	Course Type	Course Name	Course Code	Number of ECTS
Semester 1				
1.	Compulsory	Advanced Research Methodology and Biostatistics	LFS700	10
2.	Compulsory	Advanced Topics in Cancer Biology and Clinical Oncology	PCB700	10
3.	Compulsory	Ph.D. Fieldwork I	N/A	10
Semester 2				
4.	Compulsory	Ph.D. Fieldwork II	N/A	10
5.	Compulsory	Comprehensive Qualifying Examination	N/A	10
6.	Compulsory	Preparation and Submission of a Dissertation Proposal	N/A	10
Semesters 3, 4, 5				
7.	Compulsory	Ph.D. Fieldwork III, IV, V	N/A	90
Semester 6				
8.	Compulsory	Ph.D. Fieldwork VI	N/A	10
9.	Compulsory	Ph.D. Dissertation	N/A	20

In more specific, with this new structure, the Ph.D. students will now attend the courses “Advanced Research Methodology and Biostatistics” (10 ECTS) and “Advanced Topics in Cancer Biology and Clinical Oncology” (10 ECTS) (Appendix I) during the first semester and also perform “Ph.D. fieldwork” (original research work and data collection) from the very beginning of their studies and throughout their enrolment in the Ph.D. program (ranging from 10 ECTS to 30 ECTS per semester, depending on the semester). Therefore, the minimum duration of their original research implementation will be 3 years, as also recommended in section 6 below. Thus, the Ph.D. students will have more flexibility in acquiring practical lab experience throughout their studies.

In addition, even though it is recommended for students to complete their courses in the first semester prior to the qualifying exam at the end of the second semester, students may also choose to have more flexibility by registering to the “Advanced Topics in Cancer Biology and Clinical Oncology” course during the second semester and perform 20 ECTS “Ph.D. fieldwork” during the first semester. Therefore, a student who chooses this option, will register for “Advanced Research Methodology and Biostatistics” (10 ECTS) + PhD fieldwork I (10 ECTS) + PhD fieldwork II (10 ECTS) during the first semester. In the second semester, the student will register for the “Advanced Topics in Cancer Biology and Clinical Oncology” course (10 ECTS) + Comprehensive Qualifying Examination (10 ECTS) + Preparation and Submission of a Dissertation Proposal (10 ECTS).

More importantly, the “Advanced Topics in Cancer Biology and Clinical Oncology” course will be tailored to the individual needs of each Ph.D. student. Upon admission to the Ph.D. program, each student will have a defined Ph.D. Thesis topic and an assigned Ph.D. Thesis main supervisor. Ph.D. students will be divided in subgroups based on the similarities of their Ph.D. Thesis topics and/or similarities in the main research methodologies to be used, e.g. bioinformatics and systems biology approaches, flow cytometry, next-generation DNA/RNA sequencing, proteomics, development of mouse models, clinical studies, etc. Each group of students will attend relevant lectures by specialized faculty during the “Advanced Topics in Cancer Biology and Clinical Oncology” course to maximize the benefits of attending these courses and facilitate the successful implementation of their Ph.D. dissertation research projects.

In addition, specific amount of money will be allocated every year in the School’s budget for PhD students to attend specific training courses and workshops outside the University, locally or internationally, which will support them in acquiring the required theoretical background and technical skills related to the major research methodologies to be used in their Ph.D. Thesis projects. During the academic year 2022-2023, 4000 euros have been allocated in budgets of the School of Sciences and School of Medicine for this purpose. The budget will be adjusted every year based on the number of registered students and training needs. Examples of training courses and workshops include the EMBL flow cytometry training workshop (<https://www.embl.org/about/info/course-and-conference-office/events/cyt22-01/>), bioinformatics training for genetic variant analysis (<https://training.galaxyproject.org/training-material/topics/variant-analysis/>) transcriptomics analysis (<https://training.galaxyproject.org/training-material/topics/transcriptomics/>) proteomics analysis (<https://training.galaxyproject.org/training-material/topics/proteomics/>), metabolomics (<https://training.galaxyproject.org/training-material/topics/metabolomics/>), confocal microscopy training courses (<https://www.zeiss.com/microscopy/int/service-support/training-and-education.html?vaURL=www.zeiss.com/microscopy/courses#overview>), etc.

Finally, students can take advantage of the short-term and long-term Erasmus Ph.D. training mobility schemes and travel to other Universities and research groups in European or Partner countries (such as USA and Israel) in order to get trained in specialized research methodologies and techniques. The acquisition of this new knowledge and skills would be extremely useful during the implementation of their Ph.D. project and future careers. Moreover, external faculty will EUC



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(Visiting Faculty and by using the Erasmus mobility schemes) and provide lectures and/or training to our Ph.D. students.

3. Teaching staff (ESG 1.5)

Comments by the EEC:

Areas of improvement and recommendations

See our detailed assessment of the proposed doctoral programme item #6

Response by EUC:

We have fully addressed these comments in section 6, below, where the recommendations have been detailed by the EEC.



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

Comments by the EEC:

Areas of improvement and recommendations

Issues regarding supervision and criteria for Ph.D. completion are addressed in item #6.

Response by EUC:

We have fully addressed these comments in section 6, below, where the recommendations have been detailed by the EEC.

5. Learning resources and student support (ESG 1.6)

Comments by the EEC:

Areas of improvement and recommendations

1. Suggest encouraging students to excellence in teaching by, for example, providing awards for the best student teachers.
2. As students are allowed to work, there is a need for clear guidelines on the expected balance between maximal time allowed to work (during the day) and the minimal required time for research. This is especially important for graduate (MSc and PhD) students.
3. See our comments regarding the physical infrastructure of the laboratories in item #6
4. Similarly, to the medical student we recommend supplying the graduate scientific students with laptops/tablets.

Response by EUC:

1. In order to financially support Ph.D. students and also enhance their training, starting from academic year 2022-2023, we will provide them with the opportunity to serve as teaching assistants in theory or laboratory courses in related undergraduate (Biological Sciences B.Sc. and Biomedical Sciences B.Sc.) and post-graduate (Cancer Biology M.Sc.) programs. In addition, to promote and encourage excellence in teaching, we have decided to introduce an annual “Best teaching assistant award” for all Ph.D. students in the University who have served as teaching assistants during the previous academic year. Selection will be made based on defined criteria, such as student feedback during evaluation of courses, student outcomes, course success rate, etc. Best teaching assistants will receive a symbolic remuneration and an honorary plaque.
2. We agree with the EEC that, since Ph.D. students are allowed to work, clear guidelines should be in place regarding the minimal time required by Ph.D. students to be spent for their research, to ensure the successful completion of the Ph.D. degree within the average expected time framework (3-6 years). Therefore, a minimum time of **30-35 hours weekly throughout the year**, including weekends and excluding vacation time, is now defined, irrespective of other possible working obligations by the Ph.D. student. This is now clearly stated in the PhD Thesis Guide (Appendix II, page 6, section 3v).
3. We have fully addressed all comments related to EEC’s suggestions for the physical infrastructure in section 6 below.
4. We have now allocated in the School’s budget a specific amount to supply Ph.D. students of this program with a laptop or tablet, similar to the medical students.

6. Additional for doctoral programmes (ALL ESG)

Comments by the EEC:

Areas of improvement and recommendations

Our comments below are divided into three groups. The Faculty, The quality of the PhD and the Infrastructure.

A. Faculty

1. Although the faculty has substantially grown since 2019 and have impressed us by the quality of their research, some will need support by more experienced internal or external faculty to oversee a PhD student.
2. The scientific portfolio of the current faculty is somewhat limited. Perhaps additional faculty may be hired. Alternatively, the PhD program could be complemented with additional external faculty.
3. There is a need for mouse pathology, given the many mouse models studied.

B. The PhD program

1. Currently the PhD program is planned for a minimum of three years. PhDs limited to 3 years will include first year of courses and exams followed by three semesters of research and one semester for writing the PhD dissertation. This is clearly inappropriate for a PhD in life sciences.
2. We suggest a minimum of three years of original research led by the student. We recommend that students be required to join the research group from the time of initiation of their studies as a “pre- PhD candidate”. This will allow them to get acquainted with the research methodologies and with the research mentor and team. It will also allow the collection of preliminary data that is essential for a high-quality PhD proposal. After passing the exam and after approval of the PhD proposal the student will become officially a PhD student (PhD candidate).
3. Proper “exit” criteria should be published for students who do not pass the exams or, more importantly, for students who passed the exam, but their proposal is not satisfactory.
4. The reasonable time for a PhD is 4-5 years. Curiously this is exactly the expectation of the MSc students that we met (indeed they expect 5 years). We suggest having a range of 3-6 years of active research as the time scale of a PhD.
5. We believe it should be a standard that every PhD student should get a scholarship. Normally such scholarships are divided between the University and by the supervisor resources.
6. The students mentioned that one of the criteria to choose EUC for their graduate studies was the permission to work part time, which is not allowed in some other institutions. However, this should be regulated. The minimal numbers of hours of research per week should be defined. Although the program was presented to us per semester, it should be clear that research is performed throughout the year except for a reasonable vacation time.
7. The criteria for submission of a PhD dissertation vary among academic institutions in different countries. The proposed program by the EUC suggests a requirement of one first author publication and another co-author publication. While this requirement is common to many PhD programs and is desirable it is likely to be associated with a

lower publications' quality, especially these very competitive days. The lower quality could affect not only the career of the student but, importantly, the career and capability of the supervisor to obtain future funding. Low impact publications are also damaging the reputation of the university. It may also cause significant delays in graduation of the student while performing the necessary research for a successful publication.

The alternative criterion, (in addition to a co-author publication) is high quality ("publication quality") PhD thesis as determined by the student review committee. This committee should continuously advise the PhD student from the time of submission of PhD proposal and throughout the PhD by at least yearly progress meetings. This committee should include at least one member outside the department of the student's supervisor. The committee needs to approve the submission of a PhD thesis based on an outline submitted by the student towards the end of the PhD. As we mention above academic institutions adopt different criteria for PhD completion. We recommend that the team at EUC will discuss various options.

8. PhD courses – we recommend that frontal teaching during the PhD will be tailored to the needs of the individual student and flexible in their timing during the PhD (i.e. not limited to the first year). Some courses delivered by other faculties in EUC could be beneficial (for example basic and advanced computer skills, taking advantage of the very strong computer sciences faculty in EUC). For graduates of EUC MSc in cancer biology the initial courses may not be mandatory, and they could proceed to the PhD after passing the qualifying exam. This could streamline the transition from MSc to PhD and encourage graduates of EUC master program to continue to PhD in the same faculty.

c. Physical Infrastructure

1. There is insufficient research lab space to accept a significant number of PhD students. The dual use of labs for teaching and research is not recommended.
2. There are no core facilities. We recommend core facilities for technologies that are routinely used by the research groups. For example: Flow cytometry including sorting and possible Cytof or a similar technology. Microscopy imaging including confocal and atomic force microscopy. Bioinformatics (cooperation with the computer sciences faculty?). A dedicated tissue culture room approved for the use of lenti/retroviruses.

Response by EUC:

A. Faculty

1. We would like to thank the EEC for their very positive comments regarding our faculty. Our goal is to continuously increase the quantity and quality of our academic staff who have substantial experience in supervising our PhD students. Therefore, we have already announced the opening of a new full-time faculty position in "Molecular Biology with Specialization in Cancer Biology" to join us in the Fall 2022 semester (please see Appendix III). The faculty selection committee has already been formed and is in the process of inviting the shortlisted candidates for interview.
2. In addition to our existing Adjunct Faculty (Professor Tsitsilonis and Professor Trougakos from University of Athens, Professor Vlahou from Academy of Athens, and Professor Costeas from CSHM, who participated in the site evaluation visit), we have invited additional external faculty who have agreed to serve in Supervisory

Committees alongside our Faculty of our future Ph.D. candidates in the program, including Associate Professor Alexandros Tzatsos from George Washington University

(<https://apps.smhs.gwu.edu/smhs/facultydirectory/profile.cfm?empName=Alexandro s%20Tzatsos&FacID=2066586082&show=1>) and Associate Professor Antonis

Kirmizis from the University of Cyprus (<https://www.ucy.ac.cy/dir/en/component/comprofiler/userprofile/kirmizis>).

The expansion of the list of invited external faculty to co-supervise our Ph.D. students will continue based on the thematic topics of newly enrolled Ph.D. students.

- Regarding the analysis of tumors generated in our mouse models, we have already established a Histopathology Unit where tumor samples can be processed, embedded and sectioned, followed by implementation of various staining protocols such as H&E, immunohistochemistry, *in situ* hybridization, etc. The Unit consists of Leica microtome and cryostat as well as Nikon fluorescent and digital microscopes and is led by Ilias Nikas (MD), Assistant Professor of Pathology and Cytopathology, co-coordinator of the Ph.D. in Cancer Biology and Clinical Oncology program, who has also attended a specialized summer training course in “mouse pathology”, organized by PATHBIO, an EU-funded Erasmus+ training program (Appendix IV). Most importantly, the capabilities of the Histopathology Unit will be substantially improved with the acquisition of a state-of-the-art confocal microscope, which has been budgeted for the academic year 2022-2023, as explained in more detail below.

B. The PhD program

- We agree with the EEC that the structure of the PhD program needs improvement in order to be fully compatible with the requirements of Ph.D.s in Life Sciences. We have therefore revised the Ph.D.’s structure as we describe in Section 2, item 2 above and the next item point below.
- Based on the overall recommendations by the EEC, we have now re-structured the Ph.D. coursework and ECTS allocation per semester as follows:

A/ A	Course Type	Course Name	Course Code	Number of ECTS
Semester 1				
1.	Compulsory	Advanced Research Methodology and Biostatistics	LFS700	10
2.	Compulsory	Advanced Topics in Cancer Biology and Clinical Oncology	PCB700	10
3.	Compulsory	Ph.D. Fieldwork I	N/A	10
Semester 2				
4.	Compulsory	Ph.D. Fieldwork II	N/A	10
5.	Compulsory	Comprehensive Qualifying Examination	N/A	10
6.	Compulsory	Preparation and Submission of a Dissertation Proposal	N/A	10
Semesters 3, 4, 5				
7.	Compulsory	Ph.D. Fieldwork III, IV, V	N/A	90
Semester 6				
8.	Compulsory	Ph.D. Fieldwork VI	N/A	10
9.	Compulsory	Ph.D. Dissertation	N/A	20

In more specific, with this new structure, the Ph.D. students will now attend the courses “Advanced Research Methodology and Biostatistics” (10 ECTS) and “Advanced Topics in Cancer Biology and Clinical Oncology” (10 ECTS) (Appendix I) during the first semester and also perform “Ph.D. fieldwork” (original research work and data collection) from the very beginning of their studies and throughout their enrolment in the Ph.D. program (ranging from 10 ECTS to 30 ECTS per semester, depending on the semester). Therefore, the minimum duration of their original research implementation will be 3 years, as also recommended in section 6 below. Thus, the Ph.D. students will have more flexibility in acquiring practical lab experience throughout their studies.

In addition, even though it is recommended for a student to complete their courses in the first semester prior to the qualifying exam at the end of the second semester, students may also choose to have more flexibility by registering to the “Advanced Topics in Cancer Biology and Clinical Oncology” course during the second semester and perform 20 ECTS “Ph.D. fieldwork” during the first semester, as described above.

More importantly, the “Advanced Topics in Cancer Biology and Clinical Oncology” course will be tailored to the individual needs of each Ph.D. student. Upon admission to the Ph.D. program, each student will have a defined Ph.D. Thesis topic and an assigned Ph.D. Thesis main supervisor. Ph.D. students will be divided in subgroups based on the similarities of their Ph.D. Thesis topics and/or similarities in the main research methodologies to be used, e.g. bioinformatics and systems biology approaches, flow cytometry, next-generation DNA/RNA sequencing, proteomics, development of mouse models, clinical studies, etc. Each group of students will attend relevant lectures by specialized faculty during the “Advanced Topics in Cancer Biology and Clinical Oncology” course to maximize the benefits of attending these courses and facilitate the successful implementation of their Ph.D. dissertation research projects.

With this new structure, Ph.D. students will be accepted as “pre- PhD candidate” in the program and will have a defined Ph.D. Thesis topic as well as an assigned Ph.D. Thesis main Supervisor. Based on this new program structure, they can now perform Ph.D. fieldwork (original research work and data collection) from the beginning and throughout their enrolment in the Ph.D. program, so that they become early on familiar with the research methodologies, their Ph.D. Thesis Supervisor and the whole research team. Therefore, the minimum duration of their original research implementation will be at least three (3) years, according to the EEC’s recommendation. In addition, students will be able to collect preliminary data starting their Ph.D. during the first two (2) semesters of their studies to be used for the preparation and submission of a high-quality Ph.D. proposal at the end of the 2nd semester, as described in the Ph.D. Thesis Guide (please see Appendix II, page 4). After successfully passing the Comprehensive Exam and after approval of their Ph.D. proposal, the student will officially become a Ph.D. student.

3. In case students fail the qualifying exams or their proposal is not deemed satisfactory by the Supervisory Committee, they will be given a second and final chance to pass the respective assessment within 6 months. In case a student fails any of these two assessments for the second time, his/her Ph.D. studies will be terminated. In such an event, written verification will be issued by the Deans of both Schools for the recognition of studies up to that stage. According to the national legislation, these students may transfer up to 30 ECTS coursework to enter another relevant Ph.D. program, if they wish. These “exit regulations” are clearly described in the PhD Thesis Guide (please see Appendix II, pages 4-5).

4. We agree with the EEC that a reasonable time for a Ph.D. in this field is 4-5 years. In order to comply with the national legislation, the minimum duration of the PhD program (180 ECTS) is proposed to be three (3) years which, is only expected to occur in rare and exceptional cases. Based on the new Ph.D. program structure described above, students will now be admitted as “pre-PhD candidates” and will have the opportunity to perform original research from the 1st semester until the 6th semester (Ph.D. fieldwork, total 120 ECTS). Therefore, the minimum duration of their original research work will be three (3) years, as proposed by the EEC. Most importantly, the quality of the research work and the level of its completion will be continuously assessed by the Supervisory Committee during regular meetings with the Ph.D. candidate. Until the quality and completion of work is deemed satisfactory, the Ph.D. candidate will receive an “Incomplete (I)” grade in his/her Ph.D. fieldwork course until its proper completion. According to the EUC Charter, the Ph.D. duration can last up to 6 years, thus making the duration of active research 3-6 years, according to EEC’s suggestion. It should be noted that the Senate can also approve the extension for additional 2 years (total maximum 8 years) for extraordinary and fully justified cases (please see Appendix V, page 3).
5. We agree that Ph.D. students enrolled in such doctoral programs should be supported by scholarships. To this end, various types of scholarships will be available for Ph.D. students admitted in this program. For example:
 - i. Full (100%) scholarships for exemption from tuition fees. For the next academic year 2022-2023, four (4) 100% tuition waiver scholarships will be provided to exceptional Ph.D. students admitted in the Cancer Biology and Clinical Oncology (Ph.D.) program. According to the University’s Ph.D. Scholarship Award Scheme, every year faculty demonstrating significant research activities are awarded full scholarships to be given to the best Ph.D. applicants (please see Appendix VI).
 - ii. Ph.D. scholarships will be provided to Ph.D. students working as teaching assistants (TAs) in relevant theory and laboratory courses (B.Sc. or M.Sc. level) in the form of monthly stipend.
 - iii. Ph.D. scholarships will be provided to Ph.D. students working as research assistants (RAs) in funded research projects of the Principal Investigators, in the form of monthly stipend. Examples of currently funded programs which could employ PhD students as research assistants are:
 - Targeting the desmoplastic tumor microenvironment to improve the efficacy of pancreatic cancer immunotherapy (PaCalImmuno), funded by the Research and Innovation Foundation. PI: Dr. Panos Papageorgis, Amount: 250,000 euros (duration 2022-2024)
 - Investigating the mechanistic and therapeutic link between glucose and Histone acetyltransferase 1 (HAT1) activity in the aggressiveness of Glioblastoma multiforme (GlioHAT), funded by the Research and Innovation Foundation. PI: Dr. Panos Papageorgis, Amount: 75,000 euros (duration 2022-2024)
 - Deciphering the molecular and biological function of histone H2A.X N-terminal acetylation (TipX), funded by the Research and Innovation Foundation. PI: Dr. Panos Papageorgis, Amount: 75,000 euros (duration 2022-2024)

- Nanomechanical FingerPrints of Pulmonary Fibrosis (MechanoLung). funded by the Research and Innovation Foundation. PI: Dr. Andreas Stylianou, Amount: 250,000 euros (duration 2022-2024)
 - 3D NANOBIO SAMPLES, funded by the Research and Innovation Foundation. PI: Dr. Andreas Stylianou, Amount: 40,000 euros (duration 2022-2023)
- iv. Ph.D. scholarships (10% reduction in tuition fees) are awarded to students who have graduated from B.Sc. or M.Sc. programs at EUC.
- v. According to the relevant policy by the University, each Ph.D. student is awarded a 500 euros scholarship, in the form of tuition exemption, for every first author publication indexed in Scopus (please see Appendix VII, page 2).
- vi. Cumulative combinations of the above types of Ph.D. scholarships.
6. We agree with the EEC that the permission provided to Ph.D. students to work part time should be regulated. As mentioned above, the minimal number of hours of research work has been defined as **30-35 hours weekly (including weekends) throughout the year** except from reasonable vacation time, irrespective of other possible working obligations by the Ph.D. student. This is now clearly stated in the Ph.D. Thesis Guide (Appendix II page 6, section 3v).
7. We agree with the EEC that while the requirements for one (1) first-author publication and one (1) co-author publication is common to many Ph.D. programs, it is likely to be associated with a lower publications' quality and/or cause significant delays in the graduation of Ph.D. students while performing research for a high-quality publication. We also agree that it is more important to assess the quality of research work as "publishable" to high-quality journals, rather than having a first-author publication and a co-author publication in place prior to graduation. Therefore, we have modified the minimum requirements for graduation as clearly stated now in the Ph.D. Thesis Guide (Appendix II, pages 7-8) and described below:
- "The following minimum requirements need to be met by the Ph.D. students, prior to the Supervisory Committee formally receiving their final PhD dissertation for review:*
- i. *Publish a minimum of **one (1) co-author paper** (original or review based on their PhD data) in peer-reviewed international journals of good quality and present at least **one (1) paper** in conference in Cyprus and/or abroad based on the topic and data collected from their Ph.D. dissertation.*
 - ii. *Most importantly, **the Supervisory Committee should assess and ensure the high quality ("publication quality") of the Ph.D. thesis.** This Supervisory Committee should continuously advise the Ph.D. student from the time of submission of his/her Ph.D. proposal and throughout the Ph.D. during 6-month progress report meetings. This Committee should include at least one external member outside the Department of the student's Supervisor. The Supervisory Committee needs to approve the submission of the Ph.D. thesis based on a summary report submitted by the Ph.D. student"*
8. As mentioned above, we have now re-structured the Ph.D. program curriculum to include

active research (Ph.D. fieldwork) from the first semester and for a minimum of 3 years. Even though it is recommended for a student to complete their courses in the first semester prior to the qualifying exam at the end of the second semester, students may also choose to have more flexibility by registering to the “Advanced Topics in Cancer Biology and Clinical Oncology” course during the second semester and perform 20 ECTS “Ph.D. Fieldwork” during the first semester.

Importantly, the “Advanced Topics in Cancer Biology and Clinical Oncology” course will be tailored to the individual needs of each Ph.D. student. Upon admission to the Ph.D. program, each student will have a defined Ph.D. Thesis topic and an assigned Ph.D. Thesis main supervisor. Ph.D. students will be divided in subgroups based on the familiarity of their Ph.D. Thesis topics and/or similarities in the main research methodologies to be used, e.g. bioinformatics and systems biology approaches, flow cytometry, next-generation DNA sequencing, transcriptomics, proteomics, development of mouse models, clinical studies etc. Each group of students will attend relevant lectures by specialized faculty during the “Advanced Topics in Cancer Biology and Clinical Oncology” course to maximize the benefits of attending these courses and facilitate the successful implementation of their Ph.D. dissertation research projects.

Moreover, specific amount of money will be allocated every year in the School’s budget for Ph.D. students to attend specific training courses and workshops outside the University, locally or internationally, which will support them in acquiring the required knowledge and technical skills related to the major research methodologies to be used in their Ph.D. Thesis projects. Examples include the EMBL flow cytometry training workshop (<https://www.embl.org/about/info/course-and-conference-office/events/cyt22-01/>), bioinformatics training for genetic variant analysis (<https://training.galaxyproject.org/training-material/topics/variant-analysis/>), transcriptomics analysis (<https://training.galaxyproject.org/training-material/topics/transcriptomics/>), proteomics analysis (<https://training.galaxyproject.org/training-material/topics/proteomics/>), metabolomics (<https://training.galaxyproject.org/training-material/topics/metabolomics/>), confocal microscopy training courses (<https://www.zeiss.com/microscopy/int/service-support/training-and-education.html?vaURL=www.zeiss.com/microscopy/courses#overview>) etc.

Regarding the suggestion pertinent to the initial courses not being mandatory for graduates of EUC M.Sc. in Cancer Biology, according to the European Qualifications Framework (EQF) and the Cyprus national legislation, courses completed in M.Sc. programs (level 7) cannot be recognized as equivalent to Ph.D. courses (level 8)

C. Physical Infrastructure

1. We agree with the EEC that additional research space is needed to host a large number of Ph.D. students. To address this issue, we have already included in the School’s budget for the following academic year 2022-2023 a specific amount for the establishment of a new research laboratory (approx. 70m²) on the 2nd floor of the North building as well as for the purchase of necessary research equipment. In addition, a dedicated tissue culture room, including Biosafety Level 2 cabinets approved for the use of replication-deficient lenti/retroviruses will be established on the same floor.

2. We agree with the EEC that the establishment of core facilities for technologies that are routinely used by the research groups would further support the Ph.D. program and research output. It is also well-known that since the establishment of such core facilities is very costly (in the range of hundreds of thousand euros each), their development needs strategic planning during which the close collaboration between the University and faculty (through acquisition of infrastructure research grants) is necessary for securing the required funds and laboratory spaces in the near future. Part of this strategic planning is the development of a new 6-storey building within EUC campus which will host laboratories of the School of Medicine, Dentistry and School of Sciences, as recently announced publicly (<https://inbusinessnews.reporter.com.cy/business/property/article/309982/neo-exaorofoktirio-ypsoys-27-metron-ga-to-evropaiko-panepistimio>). The construction work is expected to start in June 2022.

To initiate the process of developing core facilities, we have prioritized the technologies that are routinely used by the vast majority of research groups. To this end, the University has decided to allocate a significant amount of money in the budgets of the School of Sciences and School of Medicine to purchase a state-of-the-art confocal microscope during the academic year 2022-2023 (please see proposed technical configuration in Appendix VIII). The confocal microscope will be hosted in a dedicated dark room area also located on the 2nd floor of the North building.

We will also proceed with the development of a Bioinformatics Unit at EUC, led by Dr. Apostolos Zaravinos in collaboration with Dr. Marianna Christodoulou and faculty from the Computer Science Department. This unit will be supported by access to a high-performance computing resources of the Cyprus Institute (Cyl), a non-profit research and educational institution, which is the National HPC Competence Center of the EuroCC project (European High-Performance Computing Joint Undertaking (JU) project under grant agreement No 951732). The Unit will also be supported by access and development of expertise in using large dataset analysis platforms, such as Galaxy, R, Python, Ingenuity Pathway Analysis (IPA), etc.

Regarding the other core facilities suggested by the EEC, it should be noted that a state-of-the-art 3-laser flow cytometry was purchased last year (Attune NxT, ThermoScientific <https://www.thermofisher.com/order/catalog/product/A24858>) which is already routinely used by several research groups. In case there are needs to isolate specific cell populations, our researchers have full access to a state-of-the-art cell sorter at the Karaiskakio Foundation and CSHM (BD FACS Aria III) and other related equipment, based on the MoUs signed between EUC, Karaiskakio Foundation and CSHM (Appendix IX).

Currently, Atomic Force Microscopy (AFM) is solely used by Dr. Andreas Stylianou and his research assistant. Dr. Stylianou has full and free access to two AFMs (out of three total located in Cyprus) at the Department of Manufacturing and Mechanical Engineering and the Department of Chemistry at the University of Cyprus, in the framework of a long-standing collaboration with Dr. Triantafyllos Stylianopoulos (<https://www.ucy.ac.cy/dir/en/component/comprofiler/userprofile/tstylian>) and Prof. Costas Patrickios (<https://www.ucy.ac.cy/dir/en/component/comprofiler/userprofile/costasp>), respectively. Therefore, the purchase of such equipment by EUC will be considered in the future, provided that it will become routinely used by a larger number of research groups.

Finally, since mass spectrometry is not widely used based on the current research projects of our faculty, it is not currently considered a priority. In case there is an emerging need, we



have established collaboration with the Cyprus Institute of Neurology and Genetics and are given access to an ESI-MALDI-qTOF Mass Spectrometer at the Translational facility (<https://www.cing.ac.cy/easyconsole.cfm/id/1275>) to perform research such as protein-protein interactions, identification of novel protein biomarkers, alterations of proteome profiling related to tumor pathophysiology etc. Therefore, the purchase of such costly equipment by EUC will be considered in the future, provided that it is routinely needed by our faculty.



7. Eligibility (Joint programme) (ALL ESG)

N/A

B. Conclusions and final remarks

Comments by the EEC:

The cancer biology program and faculty are impressive, and so is the university. The planning of the PhD program is very thoughtful and comprehensive as reflected both in the written application and the presentation during our site visit. We have detailed specific recommendations to improve the proposed PhD program in cancer biology.

Response by EUC:

It is with great appreciation that the Department of Life Sciences and the Department of Medicine noted the positive feedback of the EEC; We would like to thank the Committee for their favourable comments regarding our program, faculty University as well as for their insightful recommendations which gave us the opportunity to further improve the quality and implementation of the proposed Ph.D. in Cancer Biology and Clinical Oncology program.

In this response letter, we have carefully addressed all comments and suggestions raised by the Committee and we are confident that this Ph.D. program is now substantially improved.

C. Higher Education Institution academic representatives

Name	Position	Signature
Dr. Panagiotis Papageorgis	Dean of the School of Sciences Programme's Coordinator	<i>Panagiotis Papageorgis</i>
Dr. Ilias Nikas	Programme's Coordinator	<i>Ilias Nikas</i>
Dr. Anastasios Theodorou	Chairperson of the Department of Life Sciences	<i>Theodorou A</i>
Dr. Theodoros Xanthos	Chairperson of the Department of Medicine	<i>Theodoros Xanthos</i>
Prof. Elizabeth Johnson	Dean of the School of Medicine	<i>E. Johnson</i>

Date: 9.6.2022

APPENDIX I

Course Title	Advanced Research Methodology and Biostatistics				
Course Code	LFS700				
Course Type	Compulsory				
Level	Doctoral (3 rd cycle)				
Year / Semester	1 st Year/1 st Semester				
Teacher's Name	Dr Alexandros Heraclides, Dr Konstantinos Giannakou, Dr. Demetris Lamnisos, Dr Emmanouil Nikolousis				
ECTS	10	Lectures / week	2 hours/14 weeks	Laboratories / week	1 hour/14 weeks
Course Purpose and Objectives	<p>The purpose of this course is to provide an overview of advanced research methods and biostatistics with an emphasis on their applicability to biomedical science. The main objective of the course is to provide students with a deep understanding of the quantitative methods that can be adopted when conducting research in the field of biomedical sciences. The key focus of the course is on principles and skills associated with core research methods, such as deriving testable research questions, formulating clear, precise and relevant research aims and objectives, designing appropriate studies, sampling, data collection including intervention and observation, appropriate descriptive and more advanced statistical analysis, as well as presentation, interpretation, and evaluation of quality of results. In addition, students will acquire skills for conducting systematic reviews, as well as design conceptually cogent and methodologically rigorous research proposals, critically analyze research articles, as well as develop expertise in the ethical conduct of research. Course objectives will be achieved with a combination of lectures and practical data analysis seminars, as well as independent research, and the review and discussion of journal articles highlighting various aspects of the design and interpretation of studies from the cancer biology and clinical oncology fields.</p>				
Learning Outcomes	<p>Upon successful completion of this course students should be able to:</p> <ul style="list-style-type: none"> • Analyze the value of research methods within the context of biomedical research • Form a research question with testable hypotheses and design a study to evaluate that research question • Examine the ethical aspects when conducting a research study (including the relevant guidelines to obtain research ethics approval and publication guidelines) 				

	<ul style="list-style-type: none"> • Explore the appropriate sampling methods used in biomedical research and determine sample size requirements based on study design, sampling method, research question and hypothesis • Evaluate the available methods of data collection in biomedical research and analyze the concepts of reliability and validity of assessment tools for avoiding systematic errors • Apply SPSS and other statistical software as tools for data analysis in biomedical research • Choose and apply simple and advanced statistical methods for each study design and data type • Interpret and evaluate the quality of the findings from simple and advanced statistical methods • Examine the methods of conducting a systematic review and the ways to analyze the results of such studies • Demonstrate an ability to thoughtfully apply research concepts in order to design a cohesive research proposal/protocol 		
Prerequisites	N/A	Corequisites	N/A
Course Content	<p>The course content is developed as follows:</p> <ul style="list-style-type: none"> • Forming testable research questions and hypotheses • Major approaches of study design to address specific research questions • Ethical aspects of conducting a research study (including bioethics application and authorship considerations) • Methods and considerations for sampling (including power analysis) • Methods and considerations for in vitro and animal studies • Data collection in biomedical research (including validity, reliability, sensitivity, and specificity of assessment tools) • Describing data with diagrams and summary measures of location and variance • Measures of association, statistical significance, study validity and clinical relevance in n biomedical research • Parametric and non-parametric tests for the comparison of two or more independent groups with numeric outcomes (e.g., independent samples t-test, paired samples t-test, Wilcoxon rank test, one-way ANOVA, two-way mixed ANOVA, ANCOVA, Kruskal-Wallis Test) 		

	<ul style="list-style-type: none"> • Parametric and non-parametric statistical tests for the independence of two categorical variables (e.g., chi-squared test, Fisher's exact test) • Estimating the associations between two numerical variables: correlation analysis and linear regression • Estimating independent associations with binary outcomes: Logistic regression • Survival analysis: Kaplan-Meier survival curves and Cox proportional hazards regression) • Conducting systematic reviews and meta-analyses • Designing a research protocol and preparing a research proposal 								
Teaching Methodology	Face to face								
Bibliography	<p>Larry Christensen, R. Burke Johnson, Lisa A. Turner, Research Methods, Design, and Analysis, 13th Edition, 2020</p> <p>Higgins JPT, Green S. Cochrane Handbook for Systematic Reviews of Interventions, 2019</p> <p>Picardi CA, Masick KD. Research Methods Designing and Conducting Research with a Real-World Focus, 2014</p> <p>Marder P. Michael, Research Methods for Science. Cambridge University, 2011</p> <p>Field A. Discovering Statistics Using IBM SPSS Statistics. 5th Edition, Sage Publishing, 2018</p> <p>Bowers D. Medical Statistics from Scratch: An Introduction for Health Professionals. 3rd Edition. Wiley-Interscience, 2014</p>								
Assessment	<table> <tr> <td>Assignments</td> <td>60%</td> </tr> <tr> <td>Exams/Presentations</td> <td>30%</td> </tr> <tr> <td>Class Participation and Attendance</td> <td>10%</td> </tr> <tr> <td></td> <td>100%</td> </tr> </table>	Assignments	60%	Exams/Presentations	30%	Class Participation and Attendance	10%		100%
Assignments	60%								
Exams/Presentations	30%								
Class Participation and Attendance	10%								
	100%								
Language	English								

Course Title	Advanced Topics in Cancer Biology and Clinical Oncology				
Course Code	PCB700				
Course Type	Compulsory				
Level	Doctoral (3 rd cycle)				
Year / Semester	1 st Year/1 st Semester				
Teacher's Name	Dr. Panagiotis Papageorgis, Dr. Apostolos Zaravinos, Dr. Vasiliki Gkretsi, Dr. Marianna Christodoulou, Dr. Ourania Tsitsilonis, Dr. Pavlos Costeas, Dr. Ioannis Trougakos, Dr. Antonia Vlahou, Dr. Ilias Nikas, Dr. Nicolaos Zamboglou				
ECTS	10	Lectures / week	3 hours/14 weeks	Laboratories / week	NA
Course Purpose and Objectives	<p>The key purpose and objective of this course is to provide in-depth knowledge in specialized topics in the field of Cancer Biology and Clinical Oncology, such as understanding of the complex molecular mechanisms underlying carcinogenesis and the multistep process of cancer metastasis, cutting-edge therapeutic approaches for precision and personalized medicine such as tumor immunotherapy, bioinformatics and systems approaches to cancer biology and oncology, mechanisms of intrinsic and acquired drug resistance, molecular pathology and novel approaches in cancer patient stratification, development and implementation of clinical studies in oncology, as well as palliative care in patients with advanced stage cancer.</p> <p>Course objectives will be achieved using a combination of lectures and seminars, as well as critical review and discussion of related journal articles highlighting various aspects of the design and interpretation of studies from the cancer biology and clinical oncology fields.</p>				
Learning Outcomes	<p>Upon successful completion of this course students should be able to:</p> <ul style="list-style-type: none"> Analyze the principles underlying the manifestation of the hallmarks of cancer Develop an in-depth understanding of the molecular and cellular mechanisms that lead to carcinogenesis, including oncogenes and tumor suppressor genes Evaluate the mechanisms by which immune system components can either inhibit or promote tumor growth. Analyze the principles for different immunotherapies such as use of immune checkpoint inhibitor antibodies, adoptive T cell transfer, vaccinations, dendritic cell therapy etc 				

	<ul style="list-style-type: none"> • Explore the role of tumor microenvironment components in cancer progression and metastasis • Describe the major -omics technologies currently used in personalized cancer medicine • Develop ability to orally present cancer-related research papers focusing on proper communication skills as well as scientific content. • Critically evaluate and actively discuss scientific results presented in cancer journal articles as well as highlight strengths and weaknesses in the research methodologies used and data interpretation. • Develop testable hypotheses to answer cancer-related questions and design the appropriate experimental strategies to address them. • Demonstrate an ability to thoughtfully apply research concepts in order to design a cohesive cancer-related research proposal as an assessment project 		
Prerequisites	N/A	Corequisites	N/A
Course Content	<p>The course content is developed as follows:</p> <ul style="list-style-type: none"> • The hallmarks of cancer. Multi-step tumorigenesis models and cancer evolution • Tumor heterogeneity and implications for clinical management of cancer patients • Tumor microenvironment in cancer progression and metastasis • Tumor dormancy and mechanisms of cancer metastasis • Mouse models as fundamental tools for cancer research • Applications of whole-genome sequencing, transcriptomics, proteomics and bioinformatics analyses for personalized cancer medicine • Molecular Pathology in stratified cancer medicine • Latest advances in cancer immunotherapy • Mechanisms of drug resistance and strategies to improve therapeutic efficacy • Clinical use of biomarkers as cancer diagnostic tools • Pre- and post-surgical management of oncology patients 		
Teaching Methodology	Face to face		
Bibliography	<p>Biology of Cancer, Latest Edition, by R. Weinberg, Garland Science</p> <p>Molecular Biology of Cancer: Mechanisms, Targets and Therapeutics Latest Edition, by Lauren Pecorino. Oxford Press</p> <p>The MD Anderson Manual of Medical Oncology, by Hagop Kantarjian, latest edition, McGraw Hill</p> <p>Selected scientific articles in pdf format that will be provided in advance by the lecturer</p>		

Assessment	Assignments	60%
	Exams/Presentations	30%
	Class Participation and Attendance	10%
		100%
Language	English	



Department of Life Sciences, School of Sciences
Department of Medicine, School of Medicine

PhD DISSERTATION GUIDE

“CANCER BIOLOGY AND CLINICAL ONCOLOGY”

1. Introduction

This guide explains the regulations of the European University Cyprus for doctoral studies, as they are approved by the Senate of the University and appear in its statute.

In detail, the current guide describes the process of choosing a PhD topic by the students, as well as the requirements for the structure, content, and other specific methodological instructions for writing their PhD dissertation. The Guide also includes the process, preparation, submission, examination, and evaluation of the PhD dissertation.

Information that is not explicitly covered by this guide regarding the preparation of PhD dissertations as well as any problems that may arise during the preparation of the dissertation, will be resolved by the supervisor in collaboration with the programme coordinators.

The continuous collaboration of the student and the supervisor is necessary and essential, and the students must strictly follow their responsibilities. The preparation of the PhD thesis is a completely interactive process between the student and the supervisor throughout its preparation, in the sense that there is continuous and progressive feedback on the progress of the doctoral work by the supervisor.

Students should carefully study the current Guide from the beginning of their PhD studies, to avoid any mistakes, omissions and delays.

The academic staff guides and facilitates the continuous collaboration with the students for the completion of the PhD thesis in the anticipated timeframe.

2. Objective of the Interdepartmental Ph.D Program in ‘Cancer Biology and Clinical Oncology’

The objective of the Interdepartmental Program leading to the PhD Degree is to train candidates to be independent scholars and researchers in areas related to Cancer Biology and Clinical Oncology, so that they can provide effective Cancer Biology and Clinical Oncology service or scholarly support at a national and/or an international level.

3. Content and Organization of the Interdepartmental Program in ‘Cancer Biology and Clinical Oncology’

The Interdepartmental PhD Program in Cancer Biology and Clinical Oncology comprises coursework, examinations and active independent research work under supervision. More specifically, the interdepartmental PhD program in Cancer Biology and Clinical Oncology includes:

3i. Selection and registration of a doctoral thesis

Choice of doctoral thesis topic

Candidates state, along with the application for expression of interest, the topic they intend to study, as well as the Department (Life Sciences or Medicine) they intend to join. The proposed topic is preliminarily approved during the interview of the candidate. The final assignment of a topic will take place only in case there is

interest in supervising by a member of the academic staff of the European University Cyprus (EUC) or a collaborating faculty member from a third institution, together with a faculty member of EUC (co-supervision). In case the candidate agrees for supervision with a faculty member, this must be communicated to the coordinators of the PhD programme during the process of evaluation of the candidate's application.

Change of doctoral thesis topic

Once the topic of the PhD project has been established, no modification is allowed without a previously substantiated request to the program coordinators, who must inform PhD Cancer Biology and Clinical Oncology Interdepartmental Committee, which will approve the change, in the presence of serious reasons. Applications for modification of topics are accepted by students only before the assessment of their research protocol and the change has to be with the consent of both the student and primary supervisor.

Minor changes in the objectives or methodology of the research work, which do not substantially change the topic under investigation, do not require approval by the PhD Interdepartmental Committee, but such changes should always be made with the consent of both the student and the supervisor.

3ii. Specialized Courses (20 ECTS) (brief description of courses in Appendix I)

The Interdepartmental PhD in Cancer Biology and Clinical Oncology programme, includes the following taught courses:

LFS700: Advanced Research Methodology and Biostatistics

PCB700: Advanced Topics in Cancer Biology and Clinical Oncology

The specialized courses of the Interdepartmental PhD Programme provides scientific, theoretical and methodological training.

3iii. Comprehensive Qualifying Examination (10 ECTS)

The student is expected to take the mandatory Comprehensive Qualifying Examination after completing all coursework required for the Interdepartmental PhD. program. The Qualifying Examination evaluates the ability of the student to work on a theoretical framework, to propose solutions to research and theoretical issues related to the area of specialization, and to access the skills aimed at by the various courses for students to develop and advance to the Thesis/Dissertation stage of the Program.

Upon registration to the Comprehensive Qualifying Examination, the student works with their supervisor with the aim of further delving into the field in which they conduct their PhD Thesis. It is expected that the student will submit to their supervisor a first draft of the theoretical framework of their PhD thesis, of a minimum length of 8,000 words. Sitting the Comprehensive Qualifying Examination requires the prior complete submission of this part of the work.

The Comprehensive Qualifying Examination is held twice a year, once during January/February and once during June/July, if there are PhD students that have applied for the examination. Each student has the right to choose the period that he/she wishes to sit the Examination, after informing the Interdepartmental PhD Program coordinators until the 10th of December if he/she wants to sit the Examination on January/February and the 10th of May if he/she wants to sit the Examination on June/July. Regarding the above, the student needs to send a written notification both Department Councils.

In all cases, students are required to take both stages of the Comprehensive Examination in the same examination period.

The Comprehensive Qualifying Examination includes the following:

- Advanced Research Methodology and Biostatistics in Cancer Biology and Clinical Oncology
- Advanced Topics in Cancer Biology and Clinical Oncology (on the student's PhD Dissertation focus)

The Comprehensive Qualifying Examination has two stages:

- The **first stage** is a written examination based on the topics noted in the first part above and can be either carried out as a 3-hour exam at the University's premises or as a written essay through the online platform of the European University Cyprus, or at home (in the last two cases the student submits the essay together with a declaration-see Appendix II). The decision regarding the form of the Examination is taken exclusively by the examiners, after the necessary communication with the Interdepartmental PhD Program Coordinators. The topics of the examination are prepared by the faculty in charge of the three taught courses of the Interdepartmental PhD Program.
- The **second stage** is an oral individual examination with a duration of 30 minutes (including questions by the evaluation committee) on the research proposal of the student's PhD project. This examination is held by a 3-member *ad hoc* committee that consists of the Supervisor, one of the PhD Coordinators and the Full-Time Faculty that has taught the course "Advanced Research Methodology and Biostatistics" of the PhD programme. During the oral part of the examination, the Coordinators of the Interdepartmental Program do not have the right to vote.

The three-member *ad hoc* committee mentioned above evaluates both stages. In order to pass the Comprehensive Qualifying Examination, the student should pass all three areas of examination in the written and oral exam. Specifically, the student should obtain at least 70% in each area and at each stage (written and oral).

After a student's successful completion of the Comprehensive Qualifying Examination, the PhD student receives the status of "PhD Candidate" by both Department and School Councils, with mutual notification to the faculty of the other Department council.

A student may take the Comprehensive Qualifying Examination up to two (2) times in total (either for the Qualifying Examination or for any of the two parts),

The second attempt for either assessment should be taken within 6 months after the first.

In the case that the student fails for a second time in any of the two parts of the Comprehensive Qualifying Examination, he/she must interrupt his/her studies. Written verification is issued by the Deans of both Schools for the recognition of study up to that time. According to the national legislation, a student can transfer up to 30 ECTS of courses to join another PhD program, if they wish.

3iv. Preparation, Submission and Defence of the PhD Research Proposal (10 ECTS)

After completing the 3 taught courses and passing the Comprehensive Qualifying Examination, the PhD Candidate (with approval from her/his Supervisor) may draft and submit a Thesis/Dissertation proposal.

Finalization of doctoral thesis topic

In case the PhD coordinators consider that the topic of the proposed research work (as determined by the PhD candidate at the beginning of the research proposal stage) does not meet the requirements of the programme, then they raise the issue for evaluation by the PhD Interdepartmental Committee. If the Committee deems that the matter cannot proceed as a PhD thesis in the specific program, it informs the student and the supervisor giving them an additional 10 working days to submit a new or modified title. If after the end of the foreseen period the student has not submitted a full title and proposal the student fails the specific stage.

Appointing the “Supervisory Committee” of PhD Thesis/Dissertation

With the submission of the PhD Candidate’s proposal, the PhD Interdepartmental Committee, appoints the ‘Supervisory Committee’ for a given PhD project. This appointment is initiated by a suggestion brought forward by the Coordinators of the program, after a request has been placed by the Supervisor in collaboration with the PhD Candidate. The PhD Supervisory Committee consists of the primary Supervisor(s) (rank of Assistant Professor and above) and up to two Co-Supervisor(s) (any rank). At least one member of the ‘Supervisory Committee’ should have an area of specialization that has direct relevance to the student’s proposed research program and/or the methodology that the Thesis will undergo. The ‘Supervisory Committee’ should also include at least one member with previous supervisory experience.

Changes in the PhD Supervisory Committee

After the appointment of the supervisor, he/she may not change without prior submission of a justified request to the programme coordinators, who must approve the change through the PhD Interdepartmental Committee. These changes should always be justified, so that the Committee can decide whether it is indeed appropriate to change the members of the Supervisory

Committee. These changes may involve either changing the role of a member of an existing committee (e.g. a member of the supervisory team taking over the role of primary supervisor or *vice versa*), or withdrawal of a member from the supervisory team, even the primary supervisor.

The request for change can be made at any stage of the doctoral thesis, but not after the PhD student is at the final stages of completing the writing of his/her dissertation. The change request can come from the members of the supervisory board, from the program coordinators, or from the PhD student.

Preparation and Assessment of a PhD Thesis Proposal

The proposal should consist of two chapters of the final thesis, namely the theoretical framework/background of the study and the methodology to be followed. The research methodology that will be followed should adhere to the University's Research Regulations/Policy, especially regarding Ethics. In addition, the proposal should include a section "Preliminary results" in which the student should provide experimental research data obtained during the first 2 semesters of his/her studies (PhD fieldwork). The PhD candidate presents this proposal during a meeting with the relevant PhD Supervisory Committee. The proposal is approved by the Committee, or it is referred for amendment/modification. The Committee submits the Thesis/Dissertation Proposal Approval Form (Appendix III) to both Schools and Departments, for approval of the decision.

The PhD candidate may then continue with his/her PhD research. The PhD candidate can proceed to a Thesis/Dissertation defence, within a timeframe of six months or longer after a successful proposal defence. In the case of amendments/modifications to the Thesis/Dissertation proposal, the PhD Candidate will be requested to resubmit his/her improved proposal, at a time specified by the Committee (Appendix III).

3v. Independent research according to the approved PhD research proposal (120 ECTS)

Supervision of doctoral thesis

During the preparation of their thesis, students are expected to contact their primary supervisor at regular intervals (fact-to-face or online), so that they receive feedback on the progress of the PhD work and jointly plan the next implementation stages and monitor progress.

It is generally expected that students enrolled in the PhD in Cancer Biology and Clinical Oncology program, will spend **a minimum time of 35 hours weekly for research (including weekends) throughout the year except from reasonable vacation time**, irrespective of other working obligations unrelated to their PhD training.

In the event that at any stage of the PhD conduct there is lack of the expected communication or collaboration, the supervisor reports the event to the programme coordinators and the student is invited to provide a written justification for the omission. In case this is deemed insufficient, the supervisor

has the right to terminate his/her cooperation with the student, without this meaning the termination of studies for the PhD candidate (*more information in Section 3iv, sub-section "Changes in the Doctoral Dissertation Supervision Committee"*). Students have the obligation and must submit to their supervisor parts of their dissertation at regular intervals according to an agreed schedule.

Progress Report

During the write-up period of the Thesis/Dissertation, the PhD candidate is expected to submit written reports to his/her Supervisor and/or Co-Supervisor(s), once per academic year, by filling the relevant form (Appendix VII). The Supervisory Committee cooperates and meets regularly, in coordinating and assessing the 'PhD Candidates' progress.

3vi. Preparation, Submission and Public Defence of the PhD Project (20 ECTS)

General information

The Thesis/Dissertation must be an original and independent scientific work of international standard. It will be a high quality scientific and academic work in terms of formulation of the issues it addresses, precision of terminology, methodology, theory and empirical foundation, documentation and means of presentation. The Thesis/Dissertation must contribute towards developing new scientific knowledge and is to be of a standard that is appropriate for publication as part of the literature in its discipline. The length of the dissertation should not exceed 100,000 words and should not be less than 40,000 words, excluding the Bibliography Section.

A Thesis/Dissertation cannot be submitted by more than one candidate. Also, even if a piece of work may have been revised, it cannot be submitted as Thesis/Dissertation, or as part of a Thesis/Dissertation, for a PhD degree if it has already been approved or rejected by another university. The Thesis/Dissertation may be written in Greek or English language, preferably in the language that the program is taught. The structure of the PhD Thesis must follow specific criteria, which are listed in Appendix VI.

Supervisor's name as well as Supervisory committee's names will be presented on a separate page e.g., on an inside page of the dissertation (Appendix IV for Cover Page and Appendix V for Inside page).

Minimum requirements for formal evaluation of PhD Thesis by the Supervisory Committee

In addition to attending the specialized courses and seminars, that all students need to attend during their studies, the following minimum requirements need to be met by the PhD candidates, prior to the Supervisory Committee formally receiving their final PhD dissertation for review:

- i) Publish a minimum of **one (1) co-author paper** (original or review) in peer-reviewed international journals of good quality and present at least

- one (1) paper** in conference in Cyprus and/or abroad related to the topic of their PhD dissertation.
- ii) Most importantly, **the Supervisory Committee has to assess and ensure the high quality (“publication quality”) of the PhD thesis.** This Supervisory Committee should continuously advise the PhD student from the time of submission of his/her PhD proposal and throughout the PhD during 6-month progress report meetings. This committee should include at least one external member outside the department of the student’s supervisor. The Supervisory Committee needs to approve the submission of a PhD thesis based on a summary report submitted by the PhD student.

Submission of the PhD Thesis to the Supervisory Committee

On completing the Thesis/Dissertation, the Candidate submits the final copy to the Supervisor, who is responsible for evaluating the Thesis and for indicating whether it is in a state to undergo a public defence.

The PhD thesis is submitted to the Supervisor for corrections in electronic form (MS Word file) via e-mail. After the approval of the PhD thesis by the supervisor, it should be assessed by the other members of the Supervisory Committee within **one (1) month** from its submission.

The correction of the written text of the thesis by the other members of the Supervisory Committee is done electronically and the electronic file is forwarded by the primary supervisor to the student for amendments. Thereafter, the student will have up to **three (3) weeks** to make the corrections and submit the revised thesis for approval to the Supervisor. In case of a request for major corrections, the student can receive an extension of up to **two (2) months** for the submission of the revised thesis.

If the Supervisory Committee believes that a PhD thesis may be presented at a public defense, the primary supervisor requests the PhD candidate to submit the appropriate document (Appendix VIII).

The Thesis/Dissertation must be submitted in an approved standard format regarding the form of the Dissertation according to the University’s provisions. The University’s logo, the Department and the School, the title of the dissertation, the author and the month with the corresponding year (see Appendix IV) should appear on the cover page.

Once submitted, a Thesis/ Dissertation cannot be withdrawn until a final decision has been reached as to whether it can be approved for public defence. After submission, the PhD. candidate can only make corrections of a formal character, and an errata sheet detailing all such corrections must be submitted four weeks before the date of the PhD public defence. The public defence is to be held within **two (2) months**, at the latest, of submission of the Thesis/Dissertation.

Appointment of a PhD Adjudication Committee

Once the PhD thesis is submitted, the Supervisor, in collaboration with the PhD candidate, requests the appointment of an PhD Adjudication (Examination) Committee via the ‘PhD Adjudication Committee’ Appointment Form (Appendix VIII). The Interdepartmental Supervision Committee, after reviewing the opinions

of the PhD coordinators and Departments, appoints a 'PhD Adjudication Committee' based on the PhD candidate's and supervisor's proposals. The PhD coordinator suggests to the Department and the School to approve the appointment of the 'PhD Adjudication Committee' based on the PhD candidate's and supervisor's proposals.

The PhD Adjudication Committee will consist of at least three members: (i) one Faculty member within the two Departments, who has not formally assisted the student with the Thesis/Dissertation, and will serve as Chair of the Interdepartmental Committee; (ii) one Faculty member from another University. Both (i and ii) members should have an area of specialization related to the student's proposed program of research; (iii) one Faculty member from another School/Department of the University; (iv) in the case that it is deemed necessary that the Interdepartmental Committee should consist of more than three members (always odd number), the remaining members must also be independent and cover both the student's research field/discipline, as well as various other required fields/disciplines, such as: the research methodology. All members of the Committee should hold the minimum rank of Assistant Professor. Regardless of the above Committee composition, a Faculty member in the position of Lecturer can participate as an 'observer'. That member may pose questions and participate in the discussion (according to paragraph 12) but cannot vote.

PhD public defence

The PhD dissertation should be submitted to the members of the adjudication committee, at least **three (3) weeks** prior to the public defence date.

Each member of the Adjudication Committee should be present in the PhD public defence. In case of mitigating circumstances preventing the presence of the of the primary supervisor or one or both members of the Supervisory Committee, the Interdepartmental PhD Committee of the Program must be informed in writing at least 5 days before the date of support so that a new date can be set. In case of extraordinary mitigating circumstances preventing the presence of a member of the Adjudication Committee (apart from the Chairman and the 3-member Supervisory Committee, it is possible by decision of the Chairman that the thesis is examined by the 2 remaining members.

Since the defence is open to the public, it should be widely advertised in the EUC community, at least seven working days prior to the meeting for the defence. The proceedings in the public defence are chaired by the Chair of the 'PhD Adjudication Committee'. The Chair gives a brief introduction. Then the 'PhD Candidate' defends his/hers Thesis/Dissertation. The process of oral presentation of the thesis (public defence) is performed via Microsoft PowerPoint or other similar software. The presentation is expected to last 40 minutes. After the completion of the presentation, the Adjudication Committee examines the PhD candidate, in a process which should not exceed 40 minutes.

After this the members of the 'PhD Adjudication Committee' may address relevant questions to the Candidate. Other persons present, who wish to participate in the discussion, must give notice of this to the Chair before the expiry of the determined

time limit that is announced at the start of the proceedings (by filling out a special form, Appendix XI).

After the completion of the discussion, the Chair asks the 'PhD Candidate' and all participants to exit the room, and the Interdepartmental 'PhD Adjudication Committee' has a brief discussion about its decision. The PhD Candidate's Supervisor may participate in this discussion, as well as the 'PhD Candidate', in the case that the Committee deems it necessary, in order to provide any relevant information to the 'Adjudication Committee', and then exits the room after the discussion is concluded. The 3-Member Adjudication Committee then evaluates and accepts or rejects the student's PhD thesis according to the criteria mentioned in the written evaluation form (Appendix X), also listed in the next subsection. After concluding, the Adjudication Committee announces its decision to the PhD candidate.

Procedure for the final grading of the PhD Thesis by the Adjudication Committee

After the public defence, the PhD Adjudication Committee' has to submit in **three (3) working days** a detailed report through the PhD studies committee, in which it should describe the evaluation of the PhD dissertation and its public defence. The PhD Adjudication Committee' confirms the academic level of the PhD thesis in relation to the respective international standards. The report also needs to assert whether the PhD dissertation can be (or not) accepted towards the PhD Degree. The report needs to provide details regarding its decision, having the following options:

- i. **Acceptance as is** (without corrections and requested amendments).
- ii. **Acceptance with minor revisions:** Recommendation to the student for minor corrections and amendments, which will be made within **two (2) weeks** and will be approved by the primary supervisor.
- iii. **Acceptance with major revisions:** Recommendation to the student for major (extensive) amendments and corrections, which will be made within a period of **one (1) month** and will be approved by the 3-member Supervisory Committee and by the Adjudication Committee (in case requested by the committee itself). The Adjudication Committee also has the right to request a second (repeating) public defence of the revised PhD Thesis, at a period not earlier than **three (3) months**.
- iv. **Rejection:** The student has failed ("F": Fail). In case of "Rejection" of the PhD Thesis, a copy of the report is given to the PhD candidate as soon as possible, while he/she is expected to submit written comments to the members of the Adjudication Committee within **ten (10) working days** after receiving the report. These comments from the PhD candidate must be evaluated by the Adjudication Committee before the two Departments take a formal decision. If the PhD candidate has no comments, he/she should inform the two Schools immediately. The Adjudication Committee may also request a new PhD public defence, which will take place at least **three (3) months** after the initial support. In the event that the Adjudication Committee identifies major limitations in the revised PhD thesis, during the second public defence, it may request from the candidate a revised written PhD dissertation within a specific time frame.

Details of any disagreement between the members of the Adjudication Committee should be reported. The candidate's Department Council cannot reject a unanimous Adjudication Committee report. If there is dissent in the Interdepartmental Committee or if the School feels that there is reason to doubt whether the Thesis/Dissertation can be accepted or not, the Schools are to appoint two independent Professors, who are to submit independent reports within six weeks, and the Schools are to decide on the matter.

After the final version of the Thesis/Dissertation is accepted, the 'PhD Candidate' is requested to submit a copy of the Thesis/Dissertation to the European University's Library (and to all University libraries in Cyprus). Copies of the dissertation should have the appropriate form of PhD dissertation of the European University of Cyprus (e.g. only the author's name and date are written on the back. The color of the cover is black and all the entries on the cover and on the back will be marked in gold). The evaluation marksheet and the completed progress report must also be submitted within one week of the PhD public defence completion.

4. Prescribed Duration of the Interdepartmental PhD Program

The Program has a minimum duration of three (3) years and maximum duration of seven (7) years with the possibility of an extension of maximum one additional year, if justified by a student's request following a suggestion by the Supervisor endorsed by the Interdepartmental Program Committee and approved by the two Department Councils. The two Department Councils will decide whether the maximum time of study has been exceeded. If this the case, the PhD student is not permitted to defend his/her Thesis/Dissertation.

During his/her studies, the student is obliged to register in the courses and stages of the Interdepartmental PhD program every Fall and Spring semester of each year (consecutively) since his/her initial registration to the Interdepartmental Program.

The grade I (Incomplete) is allowed only during the Specialized Courses stage (see sub-section 3ii.):

- i. For one (1) semester and only in cases when the student needs more time to complete the requirements of each course, whilst he/she continues to work in order to fulfil them.
- ii. During the second (2nd) semester of following the same course, the student will need to complete the Incomplete Extension Form, in order to obtain extension for one more (the last) semester in order to fulfil the requirements of the course.
- iii. When the student is following the same course for a third (3rd) semester of coursing, the grade F (fail) is assigned and the student needs to register to the course again.

5. Conferment of the PhD degree

The candidate's Department Council, with mutual notification to the faculty of the other Department council, will decide whether or not it can confer the degree of Doctor of Philosophy (PhD) on the 'PhD Candidate' on the basis of the report from the Adjudication Committee. In the case that the 'PhD Candidate' cannot be awarded the degree of Doctor of Philosophy for any reason, then she/he is issued with a written verification by the Deans of both Schools. The Schools' decision must be approved by the Senate. It should be noted that the awarded PhD title is provisional/conditional, for at least three years. A successful Candidate will then be conferred with a PhD degree at the next EUC Degree Congregation.

6. Notes:

Anything that is not foreseen in this guide, it is regulated based on both School Councils' decisions.

Any School Council's decision and specific regulations need to be in harmony with the University's guidelines as appear in the University Charter.

Anything not provided for in these Regulations is covered by a relevant decision of both Schools.

Any decision of both Schools and any specialized regulations must be fully compatible with the University's regulations as they appear in its Statute.

APPENDIX I

Course Title	Advanced Research Methodology and Biostatistics				
Course Code	LFS700				
Course Type	Compulsory				
Level	Doctoral (3 rd cycle)				
Year / Semester	1 st Year/1 st Semester				
Teacher's Name	Dr Alexandros Heraclides, Dr Konstantinos Giannakou, Dr. Demetris Lamnisis, Dr Emmanouil Nikolousis				
ECTS	10	Lectures / week	2 hours/14 weeks	Laboratories / week	1 hour/14 weeks
Course Purpose and Objectives	<p>The purpose of this course is to provide an overview of advanced research methods and biostatistics with an emphasis on their applicability to biomedical science. The main objective of the course is to provide students with a deep understanding of the quantitative methods that can be adopted when conducting research in the field of biomedical sciences. The key focus of the course is on principles and skills associated with core research methods, such as deriving testable research questions, formulating clear, precise and relevant research aims and objectives, designing appropriate studies, sampling, data collection including intervention and observation, appropriate descriptive and more advanced statistical analysis, as well as presentation, interpretation, and evaluation of quality of results. In addition, students will acquire skills for conducting systematic reviews, as well as design conceptually cogent and methodologically rigorous research proposals, critically analyze research articles, as well as develop expertise in the ethical conduct of research. Course objectives will be achieved with a combination of lectures and practical data analysis seminars, as well as independent research, and the review and discussion of journal articles highlighting various aspects of the design and interpretation of studies from the cancer biology and clinical oncology fields.</p>				
Learning Outcomes	<p>Upon successful completion of this course students should be able to:</p> <ul style="list-style-type: none"> • Analyze the value of research methods within the context of biomedical research • Form a research question with testable hypotheses and design a study to evaluate that research question • Examine the ethical aspects when conducting a research study (including the relevant guidelines to obtain research ethics approval and publication guidelines) • Explore the appropriate sampling methods used in biomedical research and determine sample size requirements based on study design, sampling method, research question and hypothesis 				

	<ul style="list-style-type: none"> • Evaluate the available methods of data collection in biomedical research and analyze the concepts of reliability and validity of assessment tools for avoiding systematic errors • Apply SPSS and other statistical software as tools for data analysis in biomedical research • Choose and apply simple and advanced statistical methods for each study design and data type • Interpret and evaluate the quality of the findings from simple and advanced statistical methods • Examine the methods of conducting a systematic review and the ways to analyze the results of such studies • Demonstrate an ability to thoughtfully apply research concepts in order to design a cohesive research proposal/protocol 		
Prerequisites	N/A	Corequisites	N/A
Course Content	<p>The course content is developed as follows:</p> <ul style="list-style-type: none"> • Forming testable research questions and hypotheses • Major approaches of study design to address specific research questions • Ethical aspects of conducting a research study (including bioethics application and authorship considerations) • Methods and considerations for sampling (including power analysis) • Methods and considerations for in vitro and animal studies • Data collection in biomedical research (including validity, reliability, sensitivity, and specificity of assessment tools) • Describing data with diagrams and summary measures of location and variance • Measures of association, statistical significance, study validity and clinical relevance in n biomedical research • Parametric and non-parametric tests for the comparison of two or more independent groups with numeric outcomes (e.g., independent samples t-test, paired samples t-test, Wilcoxon rank test, one-way ANOVA, two-way mixed ANOVA, ANCOVA, Kruskal-Wallis Test) • Parametric and non-parametric statistical tests for the independence of two categorical variables (e.g., chi-squared test, Fisher's exact test) • Estimating the associations between two numerical variables: correlation analysis and linear regression • Estimating independent associations with binary outcomes: Logistic regression 		

	<ul style="list-style-type: none"> • Survival analysis: Kaplan-Meier survival curves and Cox proportional hazards regression) • Conducting systematic reviews and meta-analyses • Designing a research protocol and preparing a research proposal 								
Teaching Methodology	Face to face								
Bibliography	<p>Larry Christensen, R. Burke Johnson, Lisa A. Turner, Research Methods, Design, and Analysis, 13th Edition, 2020</p> <p>Higgins JPT, Green S. Cochrane Handbook for Systematic Reviews of Interventions, 2019</p> <p>Picardi CA, Masick KD. Research Methods Designing and Conducting Research with a Real-World Focus, 2014</p> <p>Marder P. Michael, Research Methods for Science. Cambridge University, 2011</p> <p>Field A. Discovering Statistics Using IBM SPSS Statistics. 5th Edition, Sage Publishing, 2018</p> <p>Bowers D. Medical Statistics from Scratch: An Introduction for Health Professionals. 3rd Edition. Wiley-Interscience, 2014</p>								
Assessment	<table> <tr> <td>Assignments</td> <td>60%</td> </tr> <tr> <td>Exams/Presentations</td> <td>30%</td> </tr> <tr> <td>Class Participation and Attendance</td> <td>10%</td> </tr> <tr> <td></td> <td>100%</td> </tr> </table>	Assignments	60%	Exams/Presentations	30%	Class Participation and Attendance	10%		100%
Assignments	60%								
Exams/Presentations	30%								
Class Participation and Attendance	10%								
	100%								
Language	English								

Course Title	Advanced Topics in Cancer Biology and Clinical Oncology				
Course Code	PCB700				
Course Type	Compulsory				
Level	Doctoral (3 rd cycle)				
Year / Semester	1 st Year/1 st Semester				
Teacher's Name	Dr. Panagiotis Papageorgis, Dr. Apostolos Zaravinos, Dr. Vasiliki Gkretsi, Dr. Marianna Christodoulou, Dr. Ourania Tsitsilonis, Dr. Pavlos Costeas, Dr. Ioannis Trougakos, Dr. Antonia Vlahou, Dr. Ilias Nikas, Dr. Nicolaos Zamboglou				
ECTS	10	Lectures / week	3 hours/14 weeks	Laboratories / week	NA
Course Purpose and Objectives	<p>The key purpose and objective of this course is to provide in-depth knowledge in specialized topics in the field of Cancer Biology and Clinical Oncology, such as understanding of the complex molecular mechanisms underlying carcinogenesis and the multistep process of cancer metastasis, cutting-edge therapeutic approaches for precision and personalized medicine such as tumor immunotherapy, bioinformatics and systems approaches to cancer biology and oncology, mechanisms of intrinsic and acquired drug resistance, molecular pathology and novel approaches in cancer patient stratification, development and implementation of clinical studies in oncology, as well as palliative care in patients with advanced stage cancer.</p> <p>Course objectives will be achieved using a combination of lectures and seminars, as well as critical review and discussion of related journal articles highlighting various aspects of the design and interpretation of studies from the cancer biology and clinical oncology fields.</p>				
Learning Outcomes	<p>Upon successful completion of this course students should be able to:</p> <ul style="list-style-type: none"> • Analyze the principles underlying the manifestation of the hallmarks of cancer • Develop an in-depth understanding of the molecular and cellular mechanisms that lead to carcinogenesis, including oncogenes and tumor suppressor genes • Evaluate the mechanisms by which immune system components can either inhibit or promote tumor growth. • Analyze the principles for different immunotherapies such as use of immune checkpoint inhibitor antibodies, adoptive T cell transfer, vaccinations, dendritic cell therapy etc • Explore the role of tumor microenvironment components in cancer progression and metastasis 				

	<ul style="list-style-type: none"> • Describe the major -omics technologies currently used in personalized cancer medicine • Develop ability to orally present cancer-related research papers focusing on proper communication skills as well as scientific content. • Critically evaluate and actively discuss scientific results presented in cancer journal articles as well as highlight strengths and weaknesses in the research methodologies used and data interpretation. • Develop testable hypotheses to answer cancer-related questions and design the appropriate experimental strategies to address them. • Demonstrate an ability to thoughtfully apply research concepts in order to design a cohesive cancer-related research proposal as an assessment project 		
Prerequisites	N/A	Corequisites	N/A
Course Content	<p>The course content is developed as follows:</p> <ul style="list-style-type: none"> • The hallmarks of cancer. Multi-step tumorigenesis models and cancer evolution • Tumor heterogeneity and implications for clinical management of cancer patients • Tumor microenvironment in cancer progression and metastasis • Tumor dormancy and mechanisms of cancer metastasis • Mouse models as fundamental tools for cancer research • Applications of whole-genome sequencing, transcriptomics, proteomics and bioinformatics analyses for personalized cancer medicine • Molecular Pathology in stratified cancer medicine • Latest advances in cancer immunotherapy • Mechanisms of drug resistance and strategies to improve therapeutic efficacy • Clinical use of biomarkers as cancer diagnostic tools • Pre- and post-surgical management of oncology patients 		
Teaching Methodology	Face to face		
Bibliography	<p>Biology of Cancer, Latest Edition, by R. Weinberg, Garland Science</p> <p>Molecular Biology of Cancer: Mechanisms, Targets and Therapeutics Latest Edition, by Lauren Pecorino. Oxford Press</p> <p>The MD Anderson Manual of Medical Oncology, by Hagop Kantarjian, latest edition, McGraw Hill</p> <p>Selected scientific articles in pdf format that will be provided in advance by the lecturer</p>		
Assessment	Assignments	60%	
	Exams/Presentations	30%	
	Class Participation and Attendance	10%	
		100%	

APPENDIX II

**Department of Life Sciences, School of Sciences &
Department of Medicine, School of Medicine**

DECLARATION FORM

I _____ with Registration Number _____ having in mind the consequences of false declaration hereby declare that what is included at the Written Essay part of the Comprehensive Qualifying Examination at the Area _____ are the result of my own attempt. Therefore, they are not products of plagiarism and I have not taken the help of any other person for its completion

Signature

Date

APPENDIX III



**Department of Life Sciences, School of Sciences &
Department of Medicine, School of Medicine**

APPROVAL OF THE PhD PROPOSAL FORM

Name of the PhD
Candidate: _____

Registration
number: _____

Date of starting the
Program: _____

Program:

Title of the PhD Proposal:

With this document it is certified that:

A. the proposal and the research design presented are suitable for the execution of the PhD dissertation upon the agreed approval of the Supervisory Team

B. the proposal and the research design presented are suitable for the execution of the PhD dissertation, with the condition of the execution of the changes mentioned in the attached document, upon the agreed approval of the Supervisory Team

C. the proposal and the research design presented are not suitable for the execution of the PhD dissertation upon the agreed approval of the Supervisory Team. The Team requests that the PhD Candidate will review the proposal and will resubmit it again for new evaluation.

Members of the Supervisory Team

Supervisor:

(SIGNATURE) (DATE) (NAME – LAST NAME)

Co-Supervisors:

(SIGNATURE) (DATE) (NAME – LAST NAME)

(SIGNATURE) (DATE) (NAME – LAST NAME)

PhD Coordinator:

(SIGNATURE) (DATE) (NAME – LAST NAME)

This form is delivered to the registration office of the European University of Cyprus, in order to complete the grade of the PHD801 course. A copy of the form is kept in the records of the Department / School

I hereby certify that the proposal presented online and the following apply:

- Ph.D's Coordinator was present
- It was audiotaped and it is available from

Supervisor:

(SIGNATURE) (DATE) (NAME – LAST NAME)

APPENDIX IV

COVER PAGE



**Department of Life Sciences, School of Sciences &
Department of Medicine, School of Medicine**

DOCTORATE DISSERTATION

Title:

«.....»

Name:.....

Nicosia, date.....

**APPENDIX V
INSIDE PAGE**

**EUROPEAN UNIVERSITY CYPRUS
DEPARTMENT OF LIFE SCIENCES
DEPARTMENT OF MEDICINE**

**DOCTORATE PROGRAM OF STUDIES
SCHOOL OF SCIENCES – SCHOOL OF MEDICINE
“CANCER BIOLOGY AND CLINICAL ONCOLOGY”**

DOCTORATE DISSERTATION

Title:

«.....»

Name and Registration number :.....

Supervisory Committee:

.....(Coordinator)

.....(Co-Coordinator)

.....(Co-Coordinator)

Nicosia, Date.....

APPENDIX VI

FINAL STRUCTURE OF THE PHD THESIS

Before final submission, students should take particular consideration to structure their PhD Thesis according to the requirements of the present guide and ensure that it is clearly written and accurate. The PhD thesis should be prepared according to the following order:

A. GENERAL GUIDELINES – PRELIMINARY PAGES

- I. Front page
- II. Preliminary pages
 - i. Title page
 - ii. Copyright page

The following information are written at the bottom of the page:

**© Year, Full Name and Surname
ALL RIGHTS RESERVED**

- iii. Copyright transfer agreement (**see appendix ...**)
- iv. Abstract

The abstract is a brief description of the Thesis and must be accurate and concise in order to reflect the purpose and content of the research, as well as the main results.

The word "ABSTRACT" of the Thesis is typed in 1½ space, Arial 11 font and full text alignment (justified). It is placed centrally at a distance of 5 (five) centimeters below the top of the page, followed by the student's name and the Thesis title. Centrally, below the title, the phrase (Under the supervision of _____) is printed and it includes the name of the main PhD Thesis Supervisor. The abstract text should be written in 1½ line spacing and should be printed on a single page surface. The abstract should not exceed 300 words. The abstract is structured and includes the following sections:

- I. Introduction
- II. Aim(s)
- III. Methodology
- IV. Results
- V. Conclusions

The keywords (up to 6), which describe the research topic, are written at the end of the abstract.

v. Introduction (optional)

a) Acknowledgements

b) Dedication

vi. Table of Contents (with page numbers)

The table of contents contain all the sections of the Thesis, including the summary. It also includes the bibliography section and all the annexes of the Thesis. If the Thesis contains subsections, these should also be included in the table of contents. The titles that appear in the table of contents and refer to the individual chapters, must correspond exactly to those in the Thesis. The page numbers in the table of contents should be placed in the right margin.

vii. List of tables (with table titles and page numbers)

Each table of the Thesis is defined by an Arabic number (for example Table 1, Table 2, etc.), or is defined by two parts of an Arabic number where the first number is mentioned in the chapter where a dot follows, and then a second number that identifies its sequential position within the chapter (for example, Table 3.2. refers to the second table in the third chapter). The heading for the list of tables should be placed 2.5 cm from the top of the page, centered, and in capitals ("TABLE LIST"). The header and the first title should be separated by a blank line. The number of each table (Arabic) and its title must be placed in the left margin. The table number and its title in the list of tables should exactly match their counterparts in the main part of the Thesis.

viii. List of figures/ (with legends and page numbers)

The heading for the list of figures should be placed 2.5 cm from the top of the page, centered, and in capitals ("LIST OF FIGURES"). The instructions given above regarding the list of tables also apply to the list of figures.

III. Main Part of Thesis

i. Introduction

In the introduction, the student leads the reader to understand the topic and ends up asking the research questions. This chapter briefly describes any information from the literature related to the topic and takes a familiarizing and preparing approach to most of the clarifying information that will follow in the main part of the Thesis. At the end of the Introduction section, the research problem is presented, followed by the

purpose and importance of the study, the individual objectives and the research hypotheses.

- a) Brief literature review
- b) Objectives
- c) Research and statistical hypotheses
- d) Basic requirements
- e) Limitations
- f) Definitions
- g) Abbreviations
- h) Symbols

ii. Literature review

The literature review includes an extensive citation of the relevant literature. It is noted that these sources do not include the material which comes from secondary sources (books, review articles), which is usually used to present basic knowledge in the introduction. When reviewing the literature, special care should be taken to focus on the topic under investigation and to limit the inclusion of studies with more general conclusions. When analyzing the bibliographic sources, emphasis should be given to the relevant findings, the relevant methodological issues and the most important conclusions. The studies under investigation should be approached critically and any controversial conclusions should be treated fairly. At the end of each section, a critical summary of the conclusions that emerge from the primary research should be made. The main sources can also be grouped in the form of appropriate tables.

iii. Methodology

In this section the student justifies his / her methodological decisions while at the same time he / she mentions the handling of possible ethical issues that may be implicated during the implementation of his / her Thesis (permission from national bioethics committee, permission/licenses from the specific services for experimental animal usage, securing the consent of research participants etc).

This section analyzes and explains the criteria and the way of selecting the sample, the means and equipment used, the procedures and methods followed and the statistical analysis. Detailed recording enables other researchers to understand the whole experimental process, to verify the results and to reproduce them if they wish. This part may include the following sections and could also include sub-sections, if necessary:

- a) Research design

- b) Materials and Methods (setting, time, sample, tools, protocols, equipment)
- c) Data collection
- d) Statistical analysis and data management
- e) Ethical issues

iv. Results

The title is placed in the middle of the page as in the previous chapters. The results are then classified and written in a clear and understandable way. The citation of figures, graphs, summary tables, mathematical formulas, are recorded in every detail. The display of statistically differences enables the researcher to reach the required conclusions. When tables are included in the presentation of the results, the word "Table" should be aligned to the left and highlighted above the table e.g. Table 3.1, followed by the title of the table (but not highlighted). When figures or diagrams are included there should be a subtitle below the figure aligned to the left indicating the number of the figure and its explanation (Figure legend).

v. Discussion-conclusions

This chapter examines, interprets and classifies the results and presents the main conclusions. Special emphasis is given to the theoretical impact of the results but also to the validity of the conclusions. The discussion begins by restating the main purpose of the research and the research hypotheses while clearly stating whether or not the results support the original hypotheses. It describes how the data support the answer (s) to the research question (s). Any similarities or differences between the results and other published research should be discussed to clarify and confirm the conclusions. It should demonstrate what is new and important by comparing the findings of the study with those of other researchers. The strengths and limitations of the study are presented (based on the methodology used). Suggestions are made for future research and for any practical application of the conclusions. The section closes with a clear statement (for example the implications of the research findings) and thoughts based on the answers of the research hypotheses.

IV. References

The bibliography is an integral part of the Thesis. The bibliography usually contains all the references that have been used in a single catalog, arranged in alphabetical order according to the surname of the first author. The Harvard system (Anglia Ruskin University variant)

is used to cite the literature.

V. Appendices

The annexes are numbered and include what is considered useful to describe but should not be included in the main part of the Thesis. For example, the appendices list types of questionnaires, software program descriptions, instructions, descriptions of complex tests, etc. In the main body of the Thesis, the corresponding references to the respective appendices should be made, where required, so that the reader can be easily guided. The annexes are always placed at the end of the Thesis. If there are more than one annexes, a number or letter (for example ANNEX A) as well as a descriptive title shall be entered as a heading. In each appendix the heading and title should be placed in the center of the page and should be listed in the table of contents. Photocopied material is acceptable in the annexes, however this material must be legible. All pages of the annexes should be numbered in Arabic numerals.

1. OTHER

1.1. COPYRIGHT PERMISSIONS

The Master thesis copyright belongs to the student and their supervisor, as they were the main contributors. In case part or whole of the Master thesis is presented in a conference, the first author will be the presenter. In case part or whole of the Master thesis is published in a journal, the first author will be the person who will have responsibility of authorship and correspondence. In any case, neither of the copyright holders is allowed to proceed with publication actions without having informed and included the other holder.

The student and the supervisor are obliged to grant copyright permissions to the European University Cyprus for use of the Master thesis for University purposes, and for printing for reprinting in a non-for-profit manner. This is done through completing and signing the relevant Copyright transfer agreement form (see Appendix).

1.2. BIOETHICAL EVALUATION OF RESEARCH STUDIES

In case of Research studies (experimental studies involving human samples, clinical studies, case series, questionnaires, etc), the student and the Supervisor have to submit an application to the Ethics committee of the University (if it is active), which will provide guidance on necessary steps, including submitting the research proposal to the National Bioethics Committee. Data collection and other experimental procedures are allowed to begin only after approval is gained by the National Bioethics Committee. In addition, any experimental studies which involve the use of laboratory animals, such as mice, should obtain approval by issuing project and personal licenses from the Cyprus Veterinary Services Committee, the Cyprus national authority for monitoring animal research for all academic institutions, in accordance with the animal welfare regulations and guidelines of the Republic of Cyprus and the European Union (European Directive 2010/63/EE and Cyprus Legislation for the protection and welfare of animals, Laws 1994-2013).

1.3. PLAGIARISM

All necessary measures should be taken by the student and their supervisor to avoid plagiarism, which is a serious academic and penal offence. Plagiarism is representing the work of somebody else as one's own, without acknowledging the source. The supervisor should audit the progress of their student(s)' theses and if they detect signs of plagiarism, the student is referred to the Master Thesis Committee which prepares a report. In this case, the student fails the Thesis and all necessary procedures are initiated, as dictated by the University

regulations.

APPENDIX VII



SCHOOL OF SCIENCES – SCHOOL OF MEDICINE

SIX-MONTH PROGRESS REPORT OF A PhD CANDIDATE FORM

(The following is completed by the PhD Candidate before the meeting with the Supervisor and is signed by the Supervisor after the meeting)

Semester: _____

Name of the PhD Candidate: _____

Registration number: _____

Date of starting the Program: _____

Program: _____

Date of meeting with the Supervisor: _____

Thematic Area of the PhD Dissertation:

Progress carried out in the current semester

Progress Schedule of the PhD Candidate in cooperation with the Supervisor for the Semester

Candidate Doctoral Program Timetable and Co-operation with Supervisor / Teacher for the 4th Quarter (next) (the next 4 months report should include an implementation report of those submitted to the previously agreed timetable)

PhD Candidate:

(SIGNATURE) (DATE) (NAME – LAST NAME)

Supervisor:

(SIGNATURE) (DATE) (NAME – LAST NAME)

PhD Coordinator:

(SIGNATURE) (DATE) (NAME – LAST NAME)

This form is sent to the Supervisor and the Co-Supervisor (s) as well as the Coordinator of the Doctoral Program, the Chair of the Department and the Dean of the School. This form also is delivered to the registration office of the European University of Cyprus, in order to complete the grade of the PHD802 course. A copy of the form is kept in the records of the Department / School

APPENDIX VIII



SCHOOL OF SCIENCES - SCHOOL OF MEDICINE

SUBMISSION OF DOCTORATE DISSERTATION

Name of the PhD Candidate:

Registration number:

Date of starting the Program:

Program:

Title of the PhD Dissertation:

With this document I submit my PhD Dissertation for examination (in 3 copies-soft binding)

PhD Candidate:

(SIGNATURE) (DATE) (NAME – LAST NAME)

Supervisor:

(SIGNATURE) (DATE) (NAME – LAST NAME)

This form together with the three (3) copies of the dissertation will be submitted to the PhD Interdepartmental Committee with notification to the Administrative Officer of the School.

APPENDIX IX



SCHOOL OF SCIENCES - SCHOOL OF MEDICINE

**REQUEST FOR THE APPOINTMENT OF THE PhD EXAMINATION
COMMITTEE FORM**

Name of the PhD Candidate:

Registration number:

Date of starting the Program:

Program:

Title of the PhD Dissertation:

The PhD Dissertation should be submitted in 3 copies

With this document the School is requested to appoint an Examination Committee for the examination of the above-mentioned PhD Dissertation

PhD Candidate:

(SIGNATURE) (DATE) (NAME – LAST NAME)

Supervisor:

(SIGNATURE) (DATE) (NAME – LAST NAME)

This form together with the three (3) copies of the dissertation will be submitted to the PhD Interdepartmental Committee with notification to the Administrative Officer of the School

APPENDIX X



**SCHOOL OF SCIENCES - SCHOOL OF MEDICINE
EXAMINATION OF A PhD DISSERTATION FORM**

Name of the PhD Candidate:

Registration number:

Date of starting the Program:

Program:

Title of the PhD Dissertation:

With this document we certify that:

A. According to the opinion of the Examination Committee, the Dissertation fulfills the established standards as it is.

B. According to the opinion of the Examination Committee, the Dissertation fulfills the established standards with the condition that the required minor changes (see attached document) will take place.

C. According to the opinion of the Examination Committee, the Dissertation fulfills the established standards with the condition that the required major changes (see attached document) will take place.

D. According to the opinion of the Examination Committee, the Dissertation does not fulfill the established standards (for details see attached document)

Additionally, the Committee recommends the re-examination of the PhD Dissertation after at least three months, based on the established schedule that the candidate will arrange with his/her Supervisor.

Committee Chairperson:

(SIGNATURE) (DATE) (NAME – LAST NAME)

Members of the Committee

Member 1:

(SIGNATURE) (DATE) (NAME – LAST NAME)

Member 2

(SIGNATURE) (DATE) (NAME – LAST NAME)

PhD Coordinator

(SIGNATURE) (DATE) (NAME – LAST NAME)

This form also is delivered to the registration office of the European University of Cyprus, in order to complete the grade of the PHD802 course. A copy of the form is kept in the records of the Department / School.

APPENDIX XII



COPYRIGHT TRANSFER AGREEMENT OF PhD THESIS

STUDENT NAME	
REGISTRATION NUMBER	
PHD THESIS TITLE	

I hereby warrant that the present PhD Thesis is result of my personal effort and work, with the exception of any reference to other authors which is acknowledged or cited and has not been submitted elsewhere for any other purpose.

Transfer to Expert Reviews Ltd all rights, title, and interest to the above-named work and its original artwork, including the right to claim copyright throughout the world, the right to grant permission to republish the work in whole or in part, and the right to republish the work in whole or in part in any format or medium including print, electronic and transparencies.

During evaluation of my PhD Thesis I am fully compliant to the following:

- Reproduction of my Thesis and provision of a copy to any member of the University;
- Disposal of a digital copy of my Thesis to appropriate auditing services for plagiarism and storage of a copy to said services, for future auditing purposes.

I hereby declare that I have read and understood completely the internal regulations of the European University Cyprus concerning academic ethics and student discipline.

Date: _____

Signature: _____

COPYRIGHT TRANSFER AGREEMENT OF SUPERVISORY COMMITTEE

We warrant that the present PhD Thesis took place under our supervision and guidance and it represents original work. We have no objection in transferring copyright to the European University Cyprus, as described above.

	_____	_____	_____
Member of committee	<u>Main Supervisor</u>	<u>Member 1</u>	<u>Member 2</u>
Signature			
Name			
Date	/ /	/ /	/ /



Academic position in Molecular Biology - specialization in Cancer Biology (Lecturer or Assistant Professor)

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R-06882

European University Cyprus encourages applications from candidates with a strong research record, as it aims to join prestigious world rankings such as Times Higher Education, QS in the next few years. Successful candidates can benefit from a significant reduction in their teaching load from the first year of their employment. The reduction in teaching load will depend on the quantity and the quality of Scopus publications they (co-)authored in the last five (5) years.

The School of Sciences, Department of Life Sciences seeks to recruit qualified academics at the academic rank of **Lecturer or Assistant Professor** in the following discipline:

- **Molecular Biology** (with specialization in Cancer Biology)

Duties and responsibilities:

- As described in the University's [Charter](#) by laws

Required qualifications, skills and competencies:

- Doctorate degree (PhD, holder in the relevant field)
- Technology oriented
- Excellent written and oral communication skills
- Fluency in Greek and English
- Very good interpersonal skills
- Global mindset
- Student Oriented
- Innovative
- Team Worker
- Emotionally Intelligent

Former Teaching Experience:

- For the rank of **Lecturer** substantial proof of competence in teaching and research is required
- For the rank of **Assistant Professor** at least 3 years of continuous academic and research experience in renowned academic institutions is required

Applications should include the following documents:

- Letter of interest
- Curriculum Vitae
- Proof of qualifications
- 2 letters of reference
- Sample of representative publication(s)

Applications process:

Please submit, electronically, all required documents **Thursday, March 31 2022**.

Apply

About Us



European University Cyprus is a thriving, international University that grew out of Cyprus College over 60 years ago. Known for its student-centered, technology-driven and employment-focused academics, EUC attracts students due to its rich past, its exciting present and its bright future.

Why join EUC?

Our greatest asset is our people! Each individual plays an important role in contributing to learning, teaching, research and support across the university to serve students' needs and impact society. As an employer who cares for its employee's well-being, we provide a supportive work environment and offer our people an environment in which they can learn, develop, excel and at the same time receive consultation in both professional and personal level if needed. Being a fast growing and developing organization it is important for us to remain focused to our values, mission and vision and ensure that new and existing personnel, academic and administrative, contributes towards the achievement of our organizational goals. The University currently engages more than 800 employees in its academic and administrative functions.

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Erasmus+ Programme
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Certificate

of Attendance

The PATHBIO Consortium certifies that

Ilias Nikas

participated at the

PATHBIO Summer Course: Module II “Mouse Pathology”

This course was streamed via zoom August 24-28, 2020. Videos of lectures and additional course material are available to course participants only for at least 6 months via a virtual learning environment.

On behalf of the PATHBIO consortium

Prof. Cord Brakebusch





INTERNAL REGULATION ON
DURATION OF STUDIES AT EUROPEAN UNIVERSITY CYPRUS

75th Senate Decision: 29 July 2020

81st Senate Decision: 2 March 2021

This supplementary Internal Regulation elaborates and further develops the existing Charter regulations on:

- “Duration of Studies’ of EUC programs of study at the Bachelor’s and the Master’s level (Annex 2 ‘Internal Regulations on Students’ Admission, Evaluation, Advancement and Graduation, Article 21.7)
- “Prescribed Duration” of EUC programs of study at the Doctoral level (Appendix C ‘Regulations of European University Cyprus on Doctoral Studies (Ph.D.), Article 5.1).

A. Programs of Study at the Bachelor’s and the Master’s Level:

Annex 2 ‘Internal Regulations on Students’ Admission, Evaluation, Advancement and Graduation, Article 21.7), Duration of Studies:

“21.7.1. The normal duration of studies at the Bachelor’s Level is four (4) to six (6) years and the maximum duration of studies is eight (8) to twelve (12) years, from the initial registration date.

21.7.2. The normal duration of studies at the Master’s Level is eighteen months (18) to two (2) years and the maximum duration of studies is thirty-six months (36) to four (4) years, from the initial registration date.

In extraordinary and fully justified cases, exception to the above may be decided by the Senate.”

1. Programs of Study at the Bachelor’s Level:

This supplementary Internal Regulation clarifies that the only extraordinary and fully justified case that may be examined for an extension of the duration of studies at the Bachelor’s level above twelve (12) years from the initial registration date¹ is the case of a

¹ Reference to ‘initial registration date’ in this document refers to the semester the student registered in the specific program of study as indicated by his/her registration number.

student who faced seriously and documented health/injury/disability circumstances during her/his studies. The student's written request for an extension of studies is subject to the respective Department and School Council justified recommendation and the Senate's final decision. This applies for all programs of study at the Bachelor's level with the exception of the following programs of study:

- (i) Doctor of Medicine (M.D.): Maximum duration of study: 8 (6 years of normal duration + 2 additional years) years. The additional years are provided for those students who need to increase a marginal difference in their GPA to reach the GPA of 2.00 required for graduation. This is subject to the Department and School Council decision.
- (ii) Bachelor of Dental Surgery (B.D.S.): Maximum duration of study: 7 (5 years of normal duration +2 additional years) years. The additional years are provided for those students who need to increase a marginal difference in their GPA to reach the GPA of 2.00 required for graduation and/or to complete their clinical requirements. This is subject to the Department and School Council decision.

2. Programs of Study at the Master's Level:

This supplementary Internal Regulation clarifies that any extraordinary and fully justified case that may be examined for an extension of the duration of studies at the Master's level (regardless of its normal duration of studies) may only be examined after a student's written application which will take place before the expiration of the normal maximum duration of studies (either three (3) or four (4) years- see program's normal duration of studies). The extension to be provided is six (6) years from the time of initial registration to the program. The student's written request for an extension of studies is subject to the respective Department and School Council justified recommendation which needs to confirm that by the end of the sixth (6th) year from the time of initial registration to the program (all semesters/years of studies inclusive), the student can fully complete his/her studies. Final approval of the Department and School Council recommendation rests on the Senate's final decision, which may decide for the expulsion of the student in case the Department Council and School Council recommendation indicates that the student, by following the academic path of the program of study, cannot complete her/his studies by the end of the sixth (6th) year from the time of initial registration to the program.

B. Programs of Study at the Doctoral Level:

Appendix C 'Regulations of European University Cyprus on Doctoral Studies (Ph.D.), Article 5.1)

"In the case of full-time study, the "Program" has a minimum duration of three years with the possibility of an extension of maximum one additional year, if justified by a student's request and approved by the School, following a suggestion from the Supervisor. In the case of part-time study, the "Program" has a minimum duration of four years and maximum six years, with the possibility of an extension of one additional year if justified by a student's request and approved by the School, following a suggestion from the

Supervisor. The proposed Year of Entry must be clearly stipulated on the Application form. The period of study can normally be extended, due to leave of absence and agreed part-time study approved by the School. Any work duties are over and above the stipulated time frame. Any changes in the duration of study, including changing status from full-time to part-time mode of study and vice-versa, will be reflected on the "Program" Acceptance Form and the study plan as agreed between the student, the Supervisor and the Department/School.

The maximum time of study for the "Program" is six years from the time of admission to the date of submission of the thesis. The student is normally registered in the "Program" over consecutive years. Any leave of absence, lengthy periods of illness, work duties and approved part-time study are not to be counted in this six-year period. If the maximum time of study is exceeded, the Ph.D./D.B.A. student (from now on "student") is not permitted to defend his/her Thesis/Dissertation. The School is to decide whether or not the maximum time of study has been exceeded."

This supplementary Internal Regulation clarifies that EUC programs of study at the Doctoral level have a minimum duration of three (3) years and a maximum duration of six (6) years from the time of initial registration to the program to the date of final approval of the Ph.D. Thesis/Dissertation by the Senate. It also clarifies that the maximum extension of studies at the Doctoral level for any extraordinary and fully justified cases is two years that may be examined after a student's written application to the respective program's Ph.D. Committee. The student's written application needs to be submitted any time before the expiration of the normal maximum duration of studies of six (6) years and should indicate the student's proposal for her/his full completion of his Doctoral studies before the end of the eighth (8th) year from the time of initial registration to the program (all semesters/years of studies inclusive). The student's written request for an extension of studies is submitted by a justified recommendation of the respective program's Ph.D. Committee accompanied by the student's supervisor(s)' justified approval of the request for an extension to the respective Department Council. The student's written request is subject to the respective Department Council justified recommendation and the School Council decision which needs to confirm that by the end of the eighth (8th) year from the time of initial registration to the program (all semesters/years of studies inclusive), the student can fully complete his/her studies. In case that the recommendation of the Department Council and the decision of the School Council is the expulsion of the student due to the fact that by following the academic path of the program of study the student cannot complete her/his studies by the end of the eighth (8th) year from the time of initial registration to the program, a Senate's final decision is necessary.

The effect for the implementation of the supplementary Internal Regulation will be the 1st of September 2020 for F2020 newly enrolled students (and onwards) and for existing students at the Bachelor's Level and at the Doctoral Level.



PhD scholarships award scheme

Vice Rector for Research and External Affairs

15 June 2015

1. Introduction

The purpose of this document is to describe a scheme for the annual award of a number of PhD scholarships at European University Cyprus. The general aim of the scheme is to reward faculty members who have been able to demonstrate an excellent recent research record. This is usually measured in terms of high impact publications, coordination or participation in research projects etc. The scholarships are awarded to faculty members who fulfill the selection criteria of the scheme and who have a suitable PhD candidate in their field.

2. Eligibility for the awards

All full-time faculty members of the University who have the rank of Assistant Professor or higher are eligible to apply for the award provided they have not been awarded a PhD scholarship as a Principal Investigator (PI) in the past three years.

3. Terms of the awards

The PhD scholarships will be awarded to the most promising candidates of any nationality. They cover the tuition fees of the PhD students for the duration of their studies.

4. Application procedure

The Vice Rector for Research and External Affairs initiates the selection process by issuing a call for proposals. The deadline for the submission of proposals will be announced. Application materials will be available from the office of the Vice Rector for Research and External Affairs and the proposals should be submitted electronically to the office of the Vice Rector. The proposal should have a principal investigator (PI) and may include a co-investigator (Co-I). Each faculty member can submit only one proposal as a PI but can be a Co-I on any number of proposals.

5. Selection criteria for the awards

The selection process for the awards is very simple but nevertheless ensures that the fundamental aim of the scheme, which is the reward of research excellence, is met.

The proposals submitted by faculty members of all Departments except those from the Departments of Law and Arts will be ranked according to the points calculated with the points accumulation system described in Appendix A. In the cases of proposals which have a Co-I, the sum of the points accumulated by the PI and the Co-I will be counted. Only points accumulated in the past five years will be considered. The awards will be made to the PIs of the proposals which are the most highly ranked.

The Office of the Vice Rector will ensure that when the scheme is fully developed and operational about 10% of the awards will be made to faculty members from the Department of Law and 10% to faculty members from the Department of Arts. For these two Departments faculty members will be ranked according to the average grade they received in the research category in their performance evaluation in the last five years.

6. Announcement of the awards and selection of PhD candidates

The announcement of the awards is expected to be made by the Office of the Vice Rector for Research and External Affairs one month after the deadline for submission of proposals. The PIs of the successful proposals are then expected to offer the scholarship to the most promising PhD candidate in their field. If no suitable candidate for the position is found within two weeks the award is revoked and is made to the next proposal on the ranking list.

Appendix A

Point calculation system

The point calculation system awards points by considering the research activity of the applicants in the past 5 years.

Scopus document in the past 5 years	30 points
Scopus citations to documents published in the past 5 years	2 points per citation
Submitted research proposals PI/EUC PI/EUC Researcher – National*	30/10/5 points
Submitted research proposal PI/EUC PI/EUC Researcher – EU*	60/20/10 points

* The points awarded for proposals are proportional to their grade.

Example: A Faculty member published 3 Scopus papers in the past 5 years which have 10, 1, 3 Scopus citations respectively. He/she submitted one national proposal as a PI and got a grade of 7/10. What are his/her total points?

The total points are calculated as follows:

Papers: $3 \times 30 = 90 \text{pts}$

Citations: $(10+1+3) \times 2 = 28 \text{pts}$

Proposals: $7/10 \times 30 = 21 \text{pts}$

Total points $90+28+21=139 \text{pts}$



**Policy for the award of scholarships to PhD students for
publishing a Scopus paper**

Vice Rector of Research and External Affairs

October 2019

Introduction

European University Cyprus awards scholarships to PhD students who have presented a paper to a Scopus Conference or published a paper in a Journal indexed by Scopus. These conferences and journals can be found at the Scopus website <https://www.scopus.com/sources>. The scholarships are in the form of a tuition fee exemption. The policy is implemented by the Office of the Vice Rector of Research & External Affairs.

Rules for the awards

The following rules will apply for the awards:

1. Each PhD student is entitled to only one award during his or her studies.
2. Students that receive this award should be in good standing and proceed normally with their PhD studies.
3. The scholarship will be paid as a tuition exemption of 500 euros, for one of the semesters after the acceptance of a publication or the presentation of the paper at a conference.
4. The PhD student must be the first, but not necessarily the only author, of the paper.
5. The application for the scholarship must be submitted within a year of the acceptance of the paper (this applies to both conference and journal papers). The scholarship cannot be awarded to students with other scholarships or awards from the University.
6. All applications will be reviewed and approved twice a year by the Senate Research Committee.
7. For the award of the scholarship for a conference paper students need to submit
 - a. Proof of official acceptance of the paper in the conference
 - b. Proof of registration at the conference
 - c. Final paper as it appears in the proceedings
 - d. Proof that the conference is in Scopus from the Scopus official website

8. For the award of the scholarship for a journal paper students need to submit
 - a. Proof of official acceptance of the paper in the journal
 - b. Final proofs of the paper from the publisher
 - c. Proof that the journal is in Scopus from the Scopus official website

Implementation

All applications for the scholarships and supporting material should be submitted to the Office of the Vice Rector of Research & External Affairs by submitting electronically the form provided by the Office and given in the Appendix. The applications can be made at any time but they are reviewed by the Senate Research Committee once in each semester. Following a positive recommendation by the Senate Research Committee, the Office of the Rector then proceeds to make the award.

Appendix



Application for the award of a scholarship for publishing a Scopus paper

Name

Reg. Number

PhD program

Details of the publication as they appear on Scopus

Author(s)	
Title	
Year	
Source title	
Volume	
Issue	
Art. No.	
Page start	
Page end	
DOI	
Document Type	

Signature

Date

Customer: European University Cyprus

Care Of: Mr. Panagiotis Papageorgis

Date: 26/05/2022

Valid Until: 15/06/2022

Configuration Confocal Microscope ZEISS LSM900

Description
ZEISS Microscope LSM 900
Axio Observer 7 stand for LSM 900 consists of: Axio Observer 7 stand incl. - motorized focus drive (smallest increment 10 nm), Z-drive fine operation flat on left side, - TFT touchscreen, - Path deflection to the tube, Sideport 60N L/R 100
3 switching positions for attachment of LSM and cameras, - tiltable carrier for transmitted-light illumination, equipped with luminous-field diaphragm, 3-position filter changer and Interface for motorized condenser incl. Shutter. - motorized 6-position objective nosepiece for transmitted light brightfield and DIC
1x tube lens with fixed 1-position tube lens mount, - keys for switching TL/RL illumination, Binocular tube 45° / field of view 23mm in intermediate image plane, 2x eyepiece PL 10x/23 Br. foc., 2x eyepiece eyecup, - dust protectioncover, - circular operation key unit right and left, - light- and contrast manager, - interfaces 4x CAN, RS 232, USB and TCP/IP, trigger socket (In/Out) for shutter, connecting socket for external UNIBLITZ shutter
Reflected, fluorescence illumination manual Set for LSM consists of: - reflected-light fluorescence illumination beam path with internal shutter and reception for manual sliders, incl. Iris stop manual slider for incident-light equipment adjustable in discrete steps, to be used as fluorescence attenuator - apochromatic corrected beam path with transmission >80% from 375 to 825nm
LD condenser 0.55 H, Ph1, Ph2, Ph3, DIC, DIC; 6 positions with aperture diaphragm, WD=26mm For objective magnifications 4.0x-100x
Scanning Stage 130x100 STEP Set for LSM consists of: - Scanning Stage 130x100 STEP with stepper motor (2 mm spindle pitch) incl. Stepper controller SMC 2009, Joystick XY, fixed motor cable with exit on stage left back side and universal mounting frame K (160 mm x 110 mm), also suitable for Z-Piezo - travel range: 130 mm x 100 mm (adjustable) - max. speed: 50 mm/s - resolution: 0.1 µm - reproducibility: +/- 1 µm - absolute accuracy: +/- 5 µm - stage surface: 325 mm x 144 mm - compatible with objectives autocorr
Universal mounting frame K-X for: - multitest dishes with foot print 124...133 x 83...88 mm - Petri dishes dia. 87...92 mm frame size 160 x 110 mm
HAL 100 illuminator with quartz collector lamp mount and heat-reflecting filter
Bulb 12V 100W Halogen Rectangular Filament
Contrast-enhancing blue filter, d=32x2.75 mm for enhanced blue-red contrast, e.g. with HE stained slides
Solid-State Light Source Colibri 5, Type RGB-UV 4-channel fluorescence light source with integrated control unit for continuous brightness adjustment, quickly switchable. Equipped with 4 solid state LED lamps. Red (630nm) for excitation of Cy5, Alexa 631, TOTO-3 and similar dyes Green (555nm) for excitation of Cy3, TRITC, DsRed and similar dyes Blue (475nm) for excitation of eGFP, Fluo4, FITC and similar dyes UV (385nm) for excitation of DAPI, Alexa 405, Hoechst 33258 and similar dyes A country-specific power cable and a desktop power supply are included in delivery.

Description
Filter set 90 HE LED (E) for use with the illumination system Colibri 5/7. Suitable for fluorescent dyes like DAPI, FITC, TRITC and Cy5 with excitation wavelengths 385, 475, 555 and 630 nm. Contains beam splitter QBS 405 + 493 + 575 + 653 and emission filter QBP 425/30 + 514/30 + 592/25 + 709/100.
Reflector module FL EC P&C Reflection avoided through tilted mount for emission filters, max. filter thickness: 5 mm
Objectives
Objective EC Plan-Neofluar 10x/0.3 M27 (FWD=5.2mm)
Objective EC Plan-Neofluar 20x/0.50 M27 (FWD=2.0mm)
Objective Plan-Apochromat 63x/1.4 Oil DIC M27 (FWD=0.19mm), incl. Immersol 518 F, oiler 20ml and Cover glasses, high performance, CG=0.17mm, box with 100 pc.
LSM 900 adapter kit Axio Observer necessary for coupling of the confocal GaAsP-detection module or the confocal MA-detection module to the inverted microscope Axio Observer.Z1. Anti-glare screen for LSM included.
LSM 900 MA-PMT detection module consists of: - LSM 900 scan module multi-alkali PMT (MA-PMT) Confocal point scanning system with patented long pass (LP) variable secondary dichroic (VSD) for flexible spectral imaging and two sensitive MA-PMT detectors. The detectors are operated in integration mode. 16-bit dynamic range for each detection channel.
Optimized emission filters in front of each channel included. Optional one additional confocal channel (MA, GaAsP or Airyscan) and one transmitted-light channel (ESID or T-PMT). Patented linear scanning with independently driven galvanometric scanners for quantitative imaging. Up to 8 frames/s at 512 x 512 pixel. Continuous zoom optics from 0.5x to 40x. Maximum frame resolution 6144 x 6144 pixel (with Airyscan 4096 x 4096 pixel) adjustable for each axis. 14.1 x 14.1mm ² field of view in intermediate image plane.
Variable pinhole with automatic alignment. Main beam splitter (MBS) for 4 laser lines (405, 488, 561 and 640nm). Internal auto-focus possible with 640nm line. MBS and VSD at 10 degree angle to incident beam for most effective excitation light suppression. Additional laser attenuation by a factor of 20 to yield an overall attenuation of 10.000:1. - Component Rack Used for ergonomic housing of power supply unit (PSU), laser module (LM), Airyscan detector and cable routing. - Power Supply Unit Line voltage 220-240V (AC) or 100-125V (AC) at 50-60Hz.
2-Channel Deflecting optics Mirror which is necessary to deflect light to second channel. Is replaced by short pass VSD when third channel is added.
LSM 900 Laser module LM URGB (D) with fiber-coupled, pigtailed and collimated lasers. Following lasers are available: - Diode laser 405nm, 5mW, laser class 3B - Diode laser 488nm, 10mW, laser class 3B - Diode laser (SHG) 561nm, 10mW, laser class 3B - Diode laser 640nm, 5mW, laser class 3B All lines directly modulated, dynamic range 10.000:1 effective.
Microscopy Workstation Compact HP Z2 G5 (O) - HP Z2 Tower G5 Workstation - Chipset: Intel W480 - Memory Expansion Slots: 4 x DDR4-RAM modules, 3200 MHz non-ECC - Memory: max. 128 GB RAM - PCI Express Connectors: 1 x PCI Express Generation 3 x16 1 x PCI Express Generation 3 x4 2 x PCI Express Generation 3 x1 - Graphics card onboard: Intel UHD Graphics 630 2 x Display Port 1.4 (max. 3840 x 2160 Pixel) - SSD: 1 x 512 GB M.2 NVMe - Hard disks: 1 x 8 TB SATA 7200 rpm - Optical Storage: DVD +/- RW recorder for rewriteable media
Network Controller: 1 x GbE LAN interface (RJ 45) - I/O: 2 x Type-A SuperSpeed USB 5 Gbps, 2 x Type-A SuperSpeed USB 10 Gbps (front), 2 x Hi-Speed USB 480 Mbps, 2 x Type-A SuperSpeed USB 10 Gbps, 2 x Type-A SuperSpeed USB 5 Gbps (rear) - Certifications <(>&<) Declarations: CE, CSA, UL, FCC, CCC, KCC - Power Supply: 700W wide-ranging with country specific plug - Chassis Dimensions: (H x W x D): 356 x 169 x 385mm - USB Mouse - Rescue Kit
System configuration 5 for HP Z2 G5 (O) Installation of Windows 10 Enterprise LTSC 2019 x64 incl. Windows 10 license Installation of ZEN software for LSM 800 and LSM 900 systems - only for 410201-9912-000 Microscopy Workstation Compact HP Z2 G5
Real Time Controller Imaging Systems
Processor Intel Core i5-10600 (HP Z2 G5) (O) Default processor configuration - Intel Core i5-10600 (3.3 GHz 12 MB cache 6 cores 12 threads) - only for 410201-9912-000 Microscopy Workstation Compact HP Z2 G5

Description
Graphics Card NVIDIA Quadro P1000 4 GB mDP (O) Professional graphics card for Microscopy Workstation - 4 GB GDDR5 memory - PCI Express 3.0 Interface x16 - Hardware acceleration of DirectX 12, OpenGL 4.5 and CUDA - Support for up to four displays - Display outputs:4 x Mini DisplayPort 1.4 (mDP) - DisplayPort support for 4 x 32" Display (3840 x 2160 Pixel)
Memory 64 GB (2x32) DDR4-3200 (HP Z2 G5) (O) consisting of 2 x 32 GB modules - DDR4 3200 MHz nonECC unbuffered DIMM - can be extended to 128 GB (2 x 410201-6400-000) - only for 410201-9912-000 Microscopy Workstation Compact HP Z2 G5
Monitor TFT 27" HP E27u G4 (68 cm) (O) Visible diagonal: 68 cm, 16:9 Maximum resolution: 2560 x 1440 pixel @ 60 Hz
ZEN 3.5 system Image acquisition and processing under Windows 10 x64. User interface configurable, control of the ZEISS microscope systems and components, extensive acquisition and analysis. CZI image format. The following modules are included: - ZEN Module Measurement - ZEN Module Multi Channel - ZEN Module Panorama - ZEN Module Manual Extended Focus - ZEN Module Image Analysis - ZEN Module Time Lapse - ZEN Module Z Stack - ZEN Module Extended Focus - ZEN Module Autofocus - ZEN Module Colocalisation - ZEN Module Spectral Unmixing (LSM only) - ZEN Module 3Dxl
Anti-vibration plate Cell Observer SD and LSM 800/900 can be used to set up a Cell Observer SD or LSM 800/900 on undamped tables.
Microscopy Camera Axiocam 305 color (D) Microscopy camera incl. Driver software 64bit, USB 3.0 PCIe x1 interface, USB 3.0 cable 3 m and IR barrier filter Hoya C5000 (coated) Number of Pixels: 2464 (H) x 2056 (V) = 5.07 Mega pixel color
Camera Adapter 60N-C 2/3" 0.63x

ANNEX TO THE MEMORANDUM OF UNDERSTANDING
BETWEEN
EUROPEAN UNIVERSITY CYPRUS (EUC) AND
KARAISKAKIO FOUNDATION

ANNEX 1


1. This Annex describes the joint actions of the **European University Cyprus** and the **Karaïskakio**, as outlined in the Memorandum of Understanding signed at Nicosia on March 5th 2020 by the European University Cyprus (EUC) and the Karaïskakio Foundation (“the parties”).

2. **Joint Research Activities**

The joint research activities will take place under a cooperation framework to support the educational and research activities of the “M.Sc. in Cancer Biology”, the “Ph.D. in Cancer Biology & Clinical Oncology” as well as other related programs of study at EUC. More specifically:

The two parties will

- Collaborate for the design and implementation of research projects in areas of mutual interest. Karaïskakio will make available their infrastructure, laboratories and facilities whereas EUC will make available their infrastructure, laboratories and auditoriums at the campus for the implementation of research projects of mutual interest, including students’ B.Sc. Thesis, M.Sc. Thesis and Ph.D. Dissertation projects. The collaborative research work will be predominantly implemented in the premises of the two parties as well as virtually/online, when needed.
- Host B.Sc., M.Sc. and Ph.D. students, as well as researchers in their premises and provide access to research infrastructure and equipment.
- Collaborate for the co-supervision of M.Sc. and Ph.D. students during the implementation of the M.Sc. Thesis and Ph.D. Dissertation projects.
- Collaborate for the development and submission of research proposals for funding by National, European and International funding bodies.
- Co-organize guest lectures, seminars, workshops, conferences and other events at the premises of both parties for the benefit of the two organizations, the students and the Cypriot community in general.



3. Advisory Board

Members of the Karaiskakio Foundation will be invited to participate to any of the future meetings of the Advisory Board of the “M.Sc. in Cancer Biology”, the “Ph.D. in Cancer Biology & Clinical Oncology” as well as other related programs of study at EUC offered by EUC.

4. Annex 1 will be effective on the date of the final signing of the Memorandum of Understanding between the two parties and automatically renew every three (3) years, unless either party provides written notice of termination.

Any Party may terminate this Annex prior to its expiration by providing at least sixty (60) days' written notice.

5. This Annex is signed in two (2) identical copies, of which each party will receive one (1).

KARAIKAKIO FOUNDATION

EUROPEAN UNIVERSITY CYPRUS

By: _____

Name: **Dr. Popi Kanari**

Title: **President**

Date: 7.12.21



By: _____

Name: **Prof. Andreas Efstathiou**

Title: **Rector**

Date:



**ANNEX TO THE MEMORANDUM OF UNDERSTANDING
BETWEEN
EUROPEAN UNIVERSITY CYPRUS (EUC) AND
THE CENTER FOR THE STUDY OF HAEMATOLOGICAL
MALIGNANCIES**

ANNEX 1

1. This Annex describes the joint actions of the **European University Cyprus** and the **Center for the Study of Haematological Malignancies (CSHM)**, as outlined in the Memorandum of Understanding signed at Nicosia on March 5th 2020 by the European University Cyprus (EUC) and the Center for the Study of Hematological Malignancies (CSHM) (“the parties”).

2. **Joint Research Activities**

The joint research activities will take place under a cooperation framework to support the educational and research activities of the “M.Sc. in Cancer Biology”, the “Ph.D. in Cancer Biology & Clinical Oncology” as well as other related programs of study at EUC. More specifically:

The two parties will

- Collaborate for the design and implementation of research projects in areas of mutual interest. Karaiskakio will make available their infrastructure, laboratories and facilities whereas EUC will make available their infrastructure, laboratories and auditoriums at the campus for the implementation of research projects of mutual interest, including students’ B.Sc. Thesis, M.Sc. Thesis and Ph.D. Dissertation projects. The collaborative research work will be predominantly implemented in the premises of the two parties as well as virtually/online, when needed.
- Host B.Sc., M.Sc. and Ph.D. students, as well as researchers in their premises and provide access to research infrastructure and equipment.
- Collaborate for the co-supervision of M.Sc. and Ph.D. students during the implementation of the M.Sc. Thesis and Ph.D. Dissertation projects.

- Collaborate for the development and submission of research proposals for funding by National, European and International funding bodies.
- Co-organize guest lectures, seminars, workshops, conferences and other events at the premises of both parties for the benefit of the two organizations, the students and the Cypriot community in general.

3. Advisory Board

Members of the CSHM will be invited to participate to any of the future meetings of the Advisory Board of the “M.Sc. in Cancer Biology”, the “Ph.D. in Cancer Biology & Clinical Oncology” as well as other related programs of study at EUC offered by EUC.

4. Annex 1 will be effective on the date of the final signing of the Memorandum of Understanding between the two parties and automatically renew every three (3) years, unless either party provides written notice of termination.

Any Party may terminate this Annex prior to its expiration by providing at least sixty (60) days' written notice.

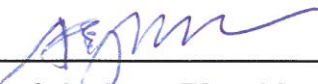
5. This Annex is signed in two (2) identical copies, of which each party will receive one (1).

**CENTER FOR THE STUDY OF
HaEMATOLOGICAL MALIGNANCIES
(CSHM)**

EUROPEAN UNIVERSITY CYPRUS

By: 
Name: Dr. Pappas Kanari
Title: Vice Chair
Date: 7/12/2012



By: 
Name: Prof. Andreas Efstathiou
Title: Rector

Date: 7/12/2012

