

Doc. 300.1.1/2

Date: Date.

External Evaluation Report (E-learning programme of study)

- **Higher Education Institution:** Frederick University
- **Town:** Nicosia, Limassol (E-Learning)
- **School/Faculty (if applicable):** School of Health Sciences
- **Department/ Sector:** Department of Life and Health Science
- **Programme of study- Name (Duration, ECTS, Cycle):**
(3 academic semesters, 90 ECTS, Master (MSc), E-learning)
In Greek:
In English: Sports and Exercise Medicine
- **Language(s) of instruction:** English and Greek
- **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. Introduction

The onsite visit allowed interaction with all relevant stakeholders. The onsite visit also allowed inspection of relevant facilities. All administrative and scientific staff engaged willingly in discussions of the program. Likewise, current and former students of the existing BSc. program interacted enthusiastically with the evaluation committee. The evaluation team was very thankful to the Frederick University team for their kind hospitality and welcoming and friendly nature throughout the two-day visit.

B. External Evaluation Committee (EEC)

<i>Name</i>	<i>Position</i>	<i>University</i>
Prof Nikolai B. Nordsborg	Chairman	University of Copenhagen
Prof Ralf Brand	Member	University of Potsdam
Prof Lee Ingle	Member	University of Hull
Prof Rob Koper	Member	OU of the Netherlands
Magda Anthousi	Student member	Cyprus University of Technology
Antonis Tsolakis	Professional body representative	NA

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

Sub-areas

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

Findings

Overall policies for quality assurance are well established; a high number of internal and external stakeholders have been involved in designing the program and suggested processes for approval, monitoring and review are in place. The planned information to be disseminated to the public appears adequate and information management is well described.

Strengths

It is clear that the program is developed in an established framework for higher education. All necessary policies and support structures were found to be in place and adequate. Creativity and innovative thinking in usage of novel methodology for student interaction was evident (for example app based kinematic analyses; virtual laboratories etc). It was also clear that the program has been developed by a core of enthusiastic staff who have gathered a high number of both internal and external colleagues, of which many have very well established research achievements and experience in higher education. It is also clear that university management is very supportive in the ambition to develop a novel and highly innovative program.

Areas of improvement and recommendations

The evaluation committee has several major concerns that require attention and modification:

1: The aim of the program is in a scientific context extremely broad. Topics are well outlined in the provided materials. Examples of topics included:

- medicine related subjects (physiotherapy; exercise epidemiology).
- cognitive sciences (psychology, motor learning).
- biological focused topics (biochemistry, exercise physiology, nutrition).
- biomechanical related topics (kinematics)
- performance analyses (tracking devices)
- support topics (statistics)
- the possibility of doing your own research.

The committee is convinced that a required in depth understanding of these topics cannot be achieved in a 2 year program. The committee wishes to highlight that comparable MSc programs in Europe are more focused and aims to provide students with the possibility for achieving in depth knowledge in selected areas. It is typically so that the

profile of a program is supported by staff profiles that are highly esteemed researchers in that area. This approach allows students to understand how science is developed; to train critical thinking and obtain a methodological skill set. All in all, students are equipped to engage in other topics on their own based on the deep-learning examples completed during the master of science training. The committee strongly suggests focusing the program on the available skillset among the most central researchers to the program. It is also the opinion of the committee that a clear ambition to have interaction with physiotherapy and possibly also engineering would be beneficial, since these topics are all-ready established strongholds of the department. Working with potential employers to identify skills gaps is also important.

2: The pure online delivery of the program

Please also refer to the section specifically addressing the online platform suggested. In a scientific context, the topic specialists in exercise science are concerned that required methodologies usually obtained through laboratory exercises are extremely difficult to achieve in an online environment. However, based on inputs from the e-learning expert of the panel the topic specific members accept that the proposed online program may be feasible.

3: Overall conclusion

In summary, the committee recommends that the program scope is narrowed; that ways of physical interaction with focus on laboratory work are considered; that the program is built around central research profiles in the group of applicants. These elements are central to the rating of 'non-compliant' in section 1.2 in the below table.

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

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

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

Sub-areas

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

2.3 Practical training

2.4 Student assessment

2.5 Study guides structure, content and interactive activities

Findings

The resources available at Frederick University should facilitate the teaching and learning processes required in the programme. The university:

- Offers currently 15 different e-learning master programmes to around 2250 students with a 100 DL teachers,
- will provide the new MSc programme in Sports and Exercise Medicine in 3 semesters, each 30 ECTS,
- offers the programme in a course module structure, using the distance teaching facilities that are available at Frederick University for all the e-learning programmes.
- uses a well maintained, secured and highly available, integrated digital learning management system (LMS) that is used for all its online education. A customized version of Moodle is at its base and integrates different synchronous (Zoom) and asynchronous communication facilities and digital resources that are required to deliver high quality distance education,
- Student information systems, like the student web portal and the learner information system (FRE) are also integrated with the LMS,
- offers professional quality audio-visual facilities and a recording studio to develop multimedia content (with support for teachers),
- plans to use a variety of simulations from an external commercial provider (Labster) to provide visualizations of the dynamics of sports and exercise medicine related content, like for example musculoskeletal visualizations of muscle tension and joint reaction forces. At the moment around 25 suitable simulations are identified from their offering, and the company is willing to develop additional simulations on request.
- offers and uses anti-plagiarism software (Turn-It-In, integrated into Moodle),
- uses, besides the LMS, other communication media like telephone, email and face-to-face contact to communicate with students and teachers,
- puts effort in the selection and training of teachers that are able to teach at a distance,
- has developed a Distance Learning Pedagogical Framework for all their e-learning programmes, consisting of three pillars: directed learning, dynamic online interaction, collaboration and communication activities and assessment. The three pillars of the model are aligned to Bloom's objectives. Programmes are developed using this model and the programmes are checked yearly in its compliance to the model.

- Drop-out of the current programmes is 5%.

The approach is appropriate for the programme, given that the programme has no ambition to provide practical training to students, other than that can be done online, e.g., through simulations, real-world assignments, audio-visual means and collaborative work.

- *Expected teleconferences for presentations, discussion and question-answer sessions, and guidance are set*
- *A specific plan is developed to safeguard and assess the interaction among its actors/resources.* Yes.
- Students and teachers are introduced and trained to use the e-learning infrastructure for teaching and learning. For students there is a 0 credits course to introduce them into distance learning and there is a distance learning student portal available.
- *The process of teaching and learning supports students' individual and social development.* Yes.
- The pedagogical model used provides the variety of methods and flexibility in the e-learning approaches that are needed to attain the learning outcomes.
- *Students are encouraged to take an active role in creating the e-learning process.*
- *The implementation of student-centered learning and teaching encourages a sense of autonomy in the learner, while ensuring adequate guidance and support from the teacher.* Yes, as is stated above.
- The university uses adequate teaching methods, tools and materials that are currently also found internationally in many other providers of e-learning programmes.
- *Mutual respect within the learner-teacher relationship is promoted.*
- *The implementation of student-centred learning and teaching respects and attends to the diversity of students and their needs, enabling flexible learning paths:* Yes.
- *Appropriate procedures for dealing with students' complaints regarding the process of teaching and learning are set:* Yes.
- *Detailed schedules in course materials are included, explicitly stating the expected hours for lectures, self-study, and group projects, ensuring transparency in time allocation:* Yes, this information is provided in the extensive study guides per course.
- *A system is integrated where each learning activity is assigned a weight proportional to its importance and time requirement, aiding in balanced curriculum design:* It is clear for students and teachers which activities are summative and which formative.
- *A complete assessment framework is designed, focusing on e-learning methodology, including clearly defined evaluation criteria for student assignments and the final examination:* This is worked out in detail in Annex 3, the course descriptions.

Strengths

The programme is ambitious and innovative. It offers a good student-centered approach and provides good interactions between students, students and teachers and students and supporting staff.

Areas of improvement and recommendations

The topic specific experts of the evaluation panel were very concerned about the lack of practical skills training that could be delivered by an e-learning only program. Whilst simulation is helpful, in view of the sports science experts in the evaluation panel, it is difficult to replace hand-on laboratory experience in, for example, physiology and biomechanics laboratories. We would ask the faculty team to consider offering for example, periodic residential visits for focused periods of practical training. This is the reason for the non-compliant decision in Section 2.2.

The panel was concerned about the idea that MSc students, who selected that option, would be required to submit their dissertation projects to an academic journal. We felt this was a very bad idea and risked institutional and individual reputational damage. In our experience the gap between what is submitted for an MSc dissertation and the standard required for publication is cavernous. This policy should be overturned and only the best projects should be considered for publication with direct support and intervention from the students' academic supervisor(s). This is the reason for the partially compliant decision in section 2.3.

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

Sub-area		<i>Non-compliant/ Partially Compliant/Compliant</i>
2	Process of teaching and learning and student-centred teaching methodology	Compliant
2.2	Practical training	Non-compliant
2.3	Student assessment	Partially compliant
2.4	Study guides structure, content and interactive activities	Compliant

3. Teaching staff (ESG 1.5)

Sub-areas

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

Findings

It is crucial for the program that experienced senior researchers from partner universities, both international and from Cyprus, are incorporated into the teaching process. Frederick University has successfully implemented this approach, which is commendable. Such integration ensures that the intended quality of teaching within the study program can be achieved. There is a majority of permanent staff, which is beneficial. It appears prudent for Frederick University to strategically supplement the staff with senior researchers whose profiles align well with the study program once it is established.

The university provides excellent opportunities for further training for both its permanent staff and visiting professors, particularly in the realm of university didactics and e-learning. This commitment to professional development extends to the justified expansion of laboratories for some of the already more successful professors, as well as comprehensive administrative support for all teaching staff.

The allocation of teaching hours relative to time for research activities is currently appropriate, balancing educational delivery with scholarly output effectively. Scholarly activities are actively encouraged to fortify the linkage between education and research. While some members of the permanent teaching staff have already established research practices essential to the program, others are still developing their research capabilities. There is no doubt about the potential within the staff to achieve international standards, as evidenced by their publication records, which show promising signs of reaching these levels soon. The strategic addition of experienced researchers, possibly including visiting professors, will be necessary to supplement and enhance the existing faculty's expertise.

Strengths

We encountered an extremely motivated, positively spirited, and well-coordinated team of researchers and lecturers who were excellently prepared for the site visit. They presented examples of ongoing initiatives, such as an assessment mapping process, that exceed core requirements. A major strength lies in the presence of beacon groups within the permanent staff, around which an excellent program can be built in the future. We have no doubt that there is 100% commitment and support from the university's leadership for the M.Sc. online program.

Areas of improvement and recommendations

- As outlined in previous sections of the report, to enhance the master's program at Frederick University, we recommend a more focused approach, narrowing the program's breadth to align more closely with existing research strengths. This may help to reduce the current extremely large number of faculty and researchers

who are expected to actively contribute, which will improve teaching coherence and support a shared mission among those finally contributing.

- An active search committee should be established to recruit staff internationally, not limited to Greece, targeting specifically experienced researchers who align with the program’s refined focus. This strategy could also attract high-potential postdoctoral researchers who have already made significant contributions to international research.
- Additionally, integrating more experienced, possibly senior researchers to mentor and support younger colleagues at the early stages of their careers will ensure their development and success, reinforcing the program’s quality and focus.
- The outlined procedures for onboarding academic staff in relation to e-learning were convincing. However, we highlight the importance of this element especially related to the usual practical nature of such programs. Thus, experienced researchers must be sufficiently supported in developing adequate online materials as they are likely to not necessarily possess these skills.

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

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

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

Sub-areas

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

Findings

Predefined and published regulations regarding student admission, progression, recognition and certification are in place.

The admission of students is suggested to be based on relevant educational backgrounds. It is acknowledged that sport and exercise science, and sports medicine disciplines are very broad, therefore students with a wide variety of BSc degrees would qualify for enrolment. These applications should be considered on a case-by-case basis.

Strengths

The existing BSc program is a relevant and established recruitment platform. It is a strength that Frederick University has established procedures for student recruitment, admission, progression, recognition and certification.

Areas of improvement and recommendations

- It is a challenge that many different professions will be allowed to enter the program. It is of importance to secure a relevant academic skill set of the applying students. It was unclear how this would be handled which is the reason for the 'partial compliant' rating. We are aware that other programs in sports and exercise science allow a variety of backgrounds in their programs (ie in the UK). Relevant information of selection criteria could likely be found in such programs.
- It is noted that a diverse background of students can be a challenge in teaching due to differences in background knowledge as well as in student collaborative efforts, again related to diversity in knowledge, and especially in academic and sport/exercise-related practical skills.
- The ambition to recruit up to 50 students yearly seems overly optimistic. We recommend building the program structure around 10 students at least for the initial years.
- Regarding student recognition, certification and assessment, the panel recommends against advertising the option that MSc students to submit theses for publication in international research journals, noting a significant quality gap and potential reputational risk.

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

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

5. Learning resources and student support (ESG 1.6)

Sub-areas

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

Findings

Weekly interactive activities per each course are set. Instruction is provided per course, using a variety of learning activities, some individual, some peer-to-peer and some teacher-student(s) interaction. Activities can vary from essays, discussion to self-study of the course resources provided. Important elements are providing feedback, group work and discussions between students so that they are engaged constantly. Given the type of content of this master also specific simulations will be used.

A pedagogical planning unit for e-learning, which is responsible for the support of the e-learning unit and addresses the requirements for study materials, interactive activities and formative assessment in accordance to international standards, is established.

Teachers and learners are supported through the Distance Learning Unit to develop educational materials for their online courses and help them to solve pedagogical design issues during course development. Also, facilities are available to create professional audio and video recordings for use in the courses.

Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.). The facilities are redundant, so adequate for changes in e.g. student numbers. *All resources are fit for purpose.*

Student-centred learning and flexible modes of e-learning and teaching, are taken into account when allocating, planning and providing the learning resources. Students have flexibility in time and tempo, within certain boundaries and the program is able to cope with the planning issues derived from this flexibility.

From the description in annex 6 and the presentations, we learned that the university has adequate and readily available resources that are required for a distance teaching university, considering that students are not working on campus but at various locations, like their home or work. With respect to the library there are two physical locations (Nicosia and Limassol) and online access to the major scientific databases.

The human support resources that are available at the university for this program are adequate and can be adapted to changing needs of the program. Distance teaching universities have to deal with a very heterogenous student population, not only in age, but also pre-knowledge, and experience. At Frederick, students are well supported and informed. A good indicator for adequate student support is the student retention rate (or its opposite the dropout rate). The university reports around 5% dropout. This is low in comparison to many other distance teaching universities.

Strengths

- Experience in offering e-learning masters with a high success rate/minimal dropout.
- Adequate distance teaching facilities and learning resources.
- The availability and deployment of the Distance Learning Pedagogical Framework for all DL programmes and courses.

Areas of improvement and recommendations

- For the highly specialized simulations there is a dependency on one supplier, it would be advised to look whether there are other suppliers available to reduce the risk of this single supplier dependency.

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

Sub-area		<i>Non-compliant/ Partially Compliant/Compliant</i>
5	Teaching and Learning resources	Compliant
5.2	Physical resources	Compliant
5.3	Human support resources	Compliant
5.4	Student support	Compliant

C. Conclusions and final remarks

Firstly, the evaluation team is very thankful to the Frederick University faculty and student member representatives that we interacted with over the 2-day visit. We were made very welcome and were very grateful for the friendly and engaging interactions throughout the visit. We felt that the proposed Master (e-learning) was an interesting and innovative program which, based on market research, had been designed for practitioners in full or part-time employment. We felt that the business-case was built on solid foundations, and our e-learning expert panel member had no doubt that Frederick University could deliver the program based on their e-learning delivery experience on other programs and current IT infrastructure. However, there was skepticism from the sports and exercise science experts in the evaluation team regarding the programs current scope, level, and proposed programme formatting which we believe requires further consideration and in some cases revision and modification.

We would like the team to consider what distinguishes masterly level learning from the bachelor's level. We consider it of importance to reflect upon existing international standards for the MSc level.

We felt that the program was very broad in its current format and felt that the program required greater focus. We felt that the Faculty needed to re-think more clearly about the skills, knowledge and experience of the students likely to be on the program, where gaps existed, and perhaps by working with potential local employers identify which skills and knowledge should be enhanced. Working with central researchers within the Faculty and coalescing around "islands" of research excellence will be key to the success of the program. We advise that the revision of the program is done in close interaction with very well-established international senior researchers. We were also concerned about the challenge of learning skills and gaining adequate training for practical and technical skills in, for example, the physiology and biomechanics laboratories. Whilst, for example, online-simulations are useful for learning they cannot replace the hands-on experience of real-world working environments.

We felt that one of the strengths of the Frederick University students' that we articulated with was a clear sense of identity via a very strong academic community and we were concerned that this may be lost via an e-learning only model. We would like the faculty to consider how they can develop this strong identity and community engagement with the proposed program. For example, periodic residential visits where students can gain hands-on laboratory experience. We feel that further revisions to the proposed e-learning program are required and would like to invite the Frederick University faculty team to carefully consider the challenges highlighted in this report and provide a modified response in light of these concerns.



D. Signatures of the EEC

<i>Name</i>	<i>Signature</i>
Prof Nikolai B Nordsborg	
Prof Ralf Brand	
Prof Lee Ingle	
Prof Rob Koper	
Antonis Tsolakis	
Magda Anthousi	

Date: 25-04-2024