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Accreditation Report for the Postgraduate Study Programme of:

Medical Physics - Radiation Physics (ex. Medical Physics)

Department: Medicine

Institution: University of Patras

Date: 15/06/2024









NOTES

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Report of the Panel appointed by the HAHE to undertake the review of the Postgraduate Study Programme of Medical Physics - Radiation

Physics (ex. Medical Physics) of the University of Patras for the purposes of granting accreditation

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PART A: BACKGROUND AND CONTEXT OF THE REVIEW

I. The External Evaluation & Accreditation Panel

The Panel responsible for the Accreditation Review of the postgraduate study programme of Medical Physics - Radiation Physics (ex. Medical Physics) of the **University of Patras** comprised the following five (5) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

- DIMAKIS NIKOLAOS (NICHOLAS) (Chair)
 Department of Physics and Astronomy, College of Sciences, University of Texas Rio Grande Valley (UTRGV)
- 2. MANOLOPOULOS SPYROS
 University Hospitals Coventry and Warwickshire (UHCW) NHS Trust
- 3. SKARLATOS YANI Boğaziçi University
- 4. GKAGKAS VASILEIOS
 Aristotle University of Thessaloniki

II. Review Procedure and Documentation

The Hellenic Authority for Higher Education (HAHE) assembled a highly qualified external evaluation accreditation panel (EEAP) of experts. This panel was tasked with assessing the compliance of the interdepartmental postgraduate study program (PSP) "Medical Physics - Radiation Physics" of the University of Patras (UOP). The EEAP was responsible for drafting an accreditation report in accordance with the HAHE Quality Assurance requirements (laws 4009/2011 & 4653/2020). The PSP assessment was conducted through document reviews and online interviews with academic staff, PSP students and graduates, and external stakeholders. The method used was an evidence-based process centered on sampling the PSP's activities. It aimed to evaluate the fulfillment of the HAHE requirements of the relevant PSP quality assurance standards and comment on their compliance, effectiveness, and applicability. The information provided by the PSP was assumed to be factually correct. The evaluation and accreditation were conducted remotely using the Zoom platform and in private meetings with the EEAP members.

The EEAP met online for the first time on Monday 3rd of June 2024, from 15:00 to 16:00 (Eastern European Time-EET) to facilitate acquaintance and establish a working approach for accreditation procedures. On the same day, the EEAP review of the PSP study program formally began at 16:00 EET. During 16:00-17:00 EET, the EEAP met with the Director of the PSP Applied Physics Studies in Atmospheric Sciences and Electronics, Prof. Costas Psychalinos, the Director of the PSP Medical Physics—Radiation Physics, Prof. George Sakellaropoulos, the Head of the Department of Physics and the School of Medicine Prof. Andreas Kazantzidis and Prof. George Antonakis, respectively, the quality assurance unit (MODIP) members Prof. Konstantinos Stathopoulos and the Deputy Director of the MODIP Fieroula Papadatou, as well as the Steering Committees/ internal evaluation unit (OMEA) members Prof. Leonidas Palilis and Associate Prof. Michael Fakis from the PSP Applied Physics Studies in Atmospheric Sciences and Electronics and Prof. George Kagadis and Prof Vassiliki Zolota from the PSP Medical Physics—Radiation Physics. The Directors of the PSPs gave short presentations of their PSPs' and answered EEAP questions related to these programs.

During 17:00–17:30 EET, the EEAP attended an online tour of various facilities, including classrooms, lecture halls, libraries, and research laboratories, through various videos that

were provided to the EEAP. During this meeting, the EEAP met with PSP Applied Physics Studies in Atmospheric Sciences and Electronics administration staff Margarita Krokou and its teaching staff members Konstantinos Giannakopoulos (Laboratory Teaching Assistant) and Assistant Prof. Dimitrios Bakalis followed by a meeting with Fotis Papathanassopoulos from the PSP Medical Physics—Radiation Physics. The day ended with the EEAP private meeting from 17.30—18:00 EET, where the members discussed their impressions of the first day and prepared for the second day of the online review.

On June 5, 2024, during 15:00–15:45 EET, the EEAP met with the PSP teaching staff, Prof. Emeritus George Panayiotakis, Prof. Konstantinos Gyftopoulos, Assistant Prof. Spyros Syggelos, Assistant Prof. Konstantina Nika, Assistant Prof. Vassiliki Stamatopoulou, Prof. John Seimenis, Medical Physicist Harry Dellis, Medical Physicist Spyros Skiadopoulos, and Medical Physicist George Vlachopoulos to discuss the PSP professional development opportunities, mobility, and teaching methods. Later, the same day, during 16:00–16:45 EET, the EEAP met with 10 PSP students to discuss their satisfaction and study experiences, followed by 9 PSP graduates during 17:30–18.15 EET to discuss their experiences and their career paths. Afterward, from 18:30 EET till 19.15 EET, the EEAP met and discussed with the following employers and social partners: Pola Platoni, president of the Association of Medical Physicists, Anna Mastorakou, Vice-Governor for Public Health, Region of Western Greece & President, Patras Medical Association, and Dimitrios Bakos, Manager, University Hospital.

During 19:30–20.00 EET, the EEAP held a private meeting to discuss the outcomes of this virtual visit and prepare the debriefing report. The debriefing meeting was held during 20.00–20.30 EET, where EEAP met with the Director of the PSP, the Head of the UoP School of Medicine, the MODIP, the PSP Steering Committee, and OMEA members. In this final meeting, the EEAP provided a general view of some of the conclusions reached.

During the following days (6–8 June 2024), the EEAP received additional information from MODIP and evaluated the content to complete the draft of the accreditation report.

III. Postgraduate Study Programme Profile

The PSP in Medical Physics-Radiation Physics was founded in 1988 and revised in 2018 (Government Gazette Issue 1627/10.5.2018 & 3922/10.9.2018). It is an interdepartmental postgraduate program from the University of Patras School of Medicine and the Department of Physics. The PSP has five-course coordinators, all from the School of Medicine. Its 59 teaching staff are as follows: 34 from UoP, 8 from the University of West Attica, 1 from the University of Crete, 1 from the University of Thessaly, 3 from the National and Kapodistrian University of Athens, 1 from BIOEMTECH, 1 from the Democritus University of Thrace, and 10 from public and private hospitals.

The PSP is a three-semester 90 ECTS program. The PSP students attend courses for two semesters, and their last semester is used for their mandatory Thesis (30 ECTS). The language of instruction is English, and attendance is required. The teaching modality is traditional (i.e., face-to-face).

The PSP has the following objectives:

- Aligning with the accreditation specifications of European Medical Physics Programs of studies.
- Preparing Physics graduates to be eligible for the needed training in Medical Physics offered by Greek Hospitals, which is required for participation in the Professional License Examinations.
- Providing scientific knowledge and research skills necessary for physicists and related scientists who wish to be involved in research and development in the field of Medical Physics and Radiation Physics.

The PSP has an annual admission capacity of 20 students. Prospective candidates must possess any of the following undergraduate degrees: Physics, Mathematics, Applied Physics and Mathematics, Medicine, Electrical Engineering, Computer Engineering, Computer Science, or Radiological Technology, or an equivalent national or international degree in compliance with Greek regulations. Additionally, applicants must include at least two letters of recommendation and a certificate of proficiency in the English language (level B2). The three-member admission committee is composed of two faculty from the School of Medicine and one faculty from the Department of Physics, all from the UoP.

There are no tuition or other fees for this PSP.

An external committee has not evaluated the PSP before.

PART B: COMPLIANCE WITH THE PRINCIPLES

PRINCIPLE 1: QUALITY ASSURANCE POLICY AND QUALITY GOAL SETTING FOR THE POSTGRADUATE STUDY PROGRAMMES OF THE INSTITUTION AND THE ACADEMIC UNIT

INSTITUTIONS SHOULD APPLY A QUALITY ASSURANCE POLICY AS PART OF THEIR STRATEGIC MANAGEMENT. THIS POLICY SHOULD EXPAND AND BE AIMED (WITH THE COLLABORATION OF EXTERNAL STAKEHOLDERS) AT THE POSTGRADUATE STUDY PROGRAMMES OF THE INSTITUTION AND THE ACADEMIC UNIT. THIS POLICY SHOULD BE PUBLISHED AND IMPLEMENTED BY ALL STAKEHOLDERS.

The quality assurance policy of the academic unit should be in line with the quality assurance policy of the Institution and must be formulated in the form of a public statement, which is implemented by all stakeholders. It focuses on the achievement of special goals related to the quality assurance of the study programmes offered by the academic unit.

Indicatively, the quality policy statement of the academic unit includes its commitment to implement a quality policy that will promote the academic profile and orientation of the postgraduate study programme (PSP), its purpose and field of study; it will realise the programme's goals and it will determine the means and ways for attaining them; it will implement appropriate quality procedures, aiming at the programme's improvement.

In particular, in order to implement this policy, the academic unit commits itself to put into practice quality procedures that will demonstrate:

- a) the suitability of the structure and organisation of postgraduate study programmes
- b) the pursuit of learning outcomes and qualifications in accordance with the European and National Qualifications Framework for Higher Education level 7
- c) the promotion of the quality and effectiveness of teaching at the PSP
- d) the appropriateness of the qualifications of the teaching staff for the PSP
- e) the drafting, implementation, and review of specific annual quality goals for the improvement of the PSP
- f) the level of demand for the graduates' qualifications in the labour market
- g) the quality of support services, such as the administrative services, the libraries and the student welfare office for the PSP
- h) the efficient utilisation of the financial resources of the PSP that may be drawn from tuition fees
- i) the conduct of an annual review and audit of the quality assurance system of the PSP through the cooperation of the Internal Evaluation Group (IEG) with the Institution's Quality Assurance Unit (QAU)

Documentation

- Quality Assurance Policy of the PSP
- Quality goal setting of the PSP

Study Programme Compliance

I. Findings

The organization and structure of the study program are suitable to the teaching objectives focus of the PSP. The learning objectives, outcomes, and qualifications are in accordance with the European and the National Qualifications Framework for Higher Education-level 7. Promotion of high quality and effectiveness of teaching is provided to the students. The curriculum is comprehensive, and the courses are taught by staff with experience in the subjects.

The PSP of Medical Physics and Radiation Physics established its quality assurance policy and published it on the PSP website. The relevant document, in compliance with the quality policy of the UoP, affirms the academic unit's commitment to establish, maintain, monitor, and improve quality assurance and clearly defines its implementation through setting goals for continuous improvement with monitoring and evaluation on an annual basis and collecting and analyzing data relevant to quality assurance.

The PSP does not charge tuition or other fees.

The KPIs are very limited in scope and do not include graduation/retention rates and the percentage of students completing course evaluations.

II. Analysis

The information outlined in the relevant documents and provided by administrators and faculty members indicates that the academic unit is committed to implementing the quality assurance policy. The PSP's goals, as they appear in the quality assurance policy and the policy goal setting, indicate an emphasis on research, teaching, and student-related considerations.

The MODIP monitors and enforces quality assurance. The PSP faculty maintains a positive attitude towards quality assurance evaluation, and interviews with students indicate a high degree of satisfaction with the quality and relevance of the education offered by the academic unit.

The PSP students can be employed in the private and public sectors, research institutions, and national agencies. Several PSP's graduates continue with doctoral studies. The job opportunities for PSP graduates indicate the sustainability and market value of the PSP.

A system of Study Advisors has been instituted. However, advising is performed in practice by the entire faculty for each student in an ad hoc fashion.

The only KPIs reported are the percentage of the number of courses with tutorials relative to the number of offered courses and several information related to the

student-to-teaching staff ratio. Important KPIs such as graduation/retention rates and the percentage of students completing course evaluations are missing. However, the latter information was provided to the EEAP upon request.

It appears that student feedback on course evaluations has a sufficient response rate. Faculty members mention that they attempt to gather verbal comments from their students throughout the school year. The feedback from the questionnaires was reviewed, conclusions were drawn, and recommendations for improvement were provided.

III. Conclusions

The PSP has established a quality assurance policy that is monitored and evaluated on a systematic basis. The process provides specific directions for improvement, which is considered necessary for further actions. Very few KPIs are included in the policy goal setting, whereas the KPI related to graduation/retention and the percentage of student evaluation surveys was not found. Thus, it does not fully satisfy Principle 1.

Panel Judgement

Principle 1: Quality assurance policy and quality goal setting	
for the postgraduate study programmes of the institution	
and the academic unit	
Fully compliant	
Substantially compliant	Х
Partially compliant	
Non-compliant	

Panel Recommendations

1. The PSP must expand its KPIs to measure graduation/retention rates and student satisfaction survey statistics.

PRINCIPLE 2: DESIGN AND APPROVAL OF POSTGRADUATE STUDY PROGRAMMES

INSTITUTIONS SHOULD DEVELOP THEIR POSTGRADUATE STUDY PROGRAMMES FOLLOWING A DEFINED WRITTEN PROCESS WHICH WILL INVOLVE THE PARTICIPANTS, INFORMATION SOURCES AND THE APPROVAL COMMITTEES FOR THE POSTGRADUATE STUDY PROGRAMMES. THE OBJECTIVES, THE EXPECTED LEARNING OUTCOMES AND THE EMPLOYMENT PROSPECTS ARE SET OUT IN THE PRORAMME DESIGN. DURING THE IMPLEMENTATION OF THE POSTGRADUATE STUDY PROGRAMMES, THE DEGREE OF ACHIEVEMENT OF THE LEARNING OUTCOMES SHOULD BE ASSESSED. THE ABOVE DETAILS, AS WELL AS INFORMATION ON THE PROGRAMME'S STRUCTURE ARE PUBLISHED IN THE STUDENT GUIDE.

The academic units develop their postgraduate study programmes following a well-defined procedure. The academic profile and orientation of the programme, the research character, the scientific objectives, the specific subject areas, and specialisations are described at this stage.

The structure, content and organisation of courses and teaching methods should be oriented towards deepening knowledge and acquiring the corresponding skills to apply the said knowledge (e.g. course on research methodology, participation in research projects, thesis with a research component).

The expected learning outcomes must be determined based on the European and National Qualifications Framework (EQF, NQF), and the Dublin Descriptors for level 7. During the implementation of the programme, the degree of achievement of the expected learning outcomes and the feedback of the learning process must be assessed with the appropriate tools. For each learning outcome that is designed and made public, it is necessary that its evaluation criteria are also designed and made public.

In addition, the design of PSP must consider:

- the Institutional strategy
- the active involvement of students
- the experience of external stakeholders from the labour market
- the anticipated student workload according to the European Credit Transfer and Accumulation System (ECTS) for level 7
- the option of providing work experience to students
- the linking of teaching and research
- the relevant regulatory framework and the official procedure for the approval of the PSP by the Institution

The procedure of approval or revision of the programmes provides for the verification of compliance with the basic requirements of the Standards by the Institution's Quality Assurance Unit (QAU).

Documentation

- Senate decision for the establishment of the PSP
- PSP curriculum structure: courses, course categories, ECTS awarded, expected learning outcomes according to the EQF, internship, mobility opportunities
- Labour market data regarding the employment of graduates, international experience in a relevant scientific field
- PSP Student Guide
- Course and thesis outlines

 Teaching staff (name list including of areas of specialisation, its relation to the courses taught, employment relationship, and teaching assignment in hours as well as other teaching commitments in hours)

Study Programme Compliance

I. Findings

The PSP in Medical Physics and Radiation Physics is an interdisciplinary venture between physics and medicine aiming at training in modern technologies, conducting research, and advancing basic and applied knowledge in the relevant fields of physics. The PSP is taught in English.

The curriculum, course syllabi, and contents have been developed per the institution's relevant policies and agree with the ECTS guidelines. All the above are included in the Study Guide ($O\delta\eta\gamma\delta\varsigma$ $\Sigma\pi\sigma\upsilon\delta\omega\nu$).

The program aims to continuously improve educational and research activities and maintain high-quality services under the HAHE guidelines.

There is no evidence that students, graduates, and external stakeholders actively participate in curriculum changes and improvements.

II. Analysis

The PSP study program resembles comparable programs in the U.S. and European universities. Its design is based on the needs of the national and international markets in the relevant fields and conforms to the prescriptions of Level 7 of the European and National Qualifications Framework for Higher Education. The program of study, which requires 90 ECTS for the degree (30 ECTS per semester), allows students to start working on their Thesis in the final third semester.

The PSP program of studies consists of compulsory courses and concludes with a research-based Thesis on a specialized subject.

The program's success is evident from the number of graduates who are accepted as Ph.D. candidates in related fields and employed in hospitals as Medical Physicists.

The PSP is in English, which increases the program's exposure to the non-speaking Greek population.

III. Conclusions

The program complies with accepted standards and practices at other institutions in this area of study and is adequate to prepare the students for the market. The stakeholders were very enthusiastic about the program's graduates and offered to participate in a feedback mechanism for its continuous improvement.

Panel Judgement

Principle 2: Design and approval of postgraduate study	
programmes	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

1. The PSP should consider establishing a feedback mechanism involving students, graduates, and stakeholders to continuously improve the material taught in the PSP.

PRINCIPLE 3: STUDENT-CENTRED LEARNING, TEACHING, AND ASSESSMENT

INSTITUTIONS SHOULD ENSURE THAT POSTGRADUATE STUDY PROGRAMMES PROVIDE THE NECESSARY CONDITIONS TO ENCOURAGE STUDENTS TO TAKE AN ACTIVE ROLE IN THE LEARNING PROCESS. THE ASSESSMENT METHODS SHOULD REFLECT THIS APPROACH.

Student-centred learning and teaching plays an important role in enhancing students' motivation, their self-evaluation, and their active participation in the learning process. The above entail continuous consideration of the programme's delivery and the assessment of the related outcomes.

The student-centred learning and teaching process

- respects and attends to the diversity of students and their needs by adopting flexible learning paths
- considers and uses different modes of delivery, where appropriate
- flexibly uses a variety of pedagogical methods
- regularly evaluates and adjusts the modes of delivery and pedagogical methods aiming at improvement
- regularly evaluates the quality and effectiveness of teaching, as documented especially through student surveys
- strengthens the student's sense of autonomy, while ensuring adequate guidance and support from the teaching staff
- promotes mutual respect in the student-teacher relationship
- applies appropriate procedures for dealing with the students' complaints
- provides counselling and guidance for the preparation of the thesis

In addition

- The academic staff are familiar with the existing examination system and methods and are supported in developing their own skills in this field.
- The assessment criteria and methods are published in advance. The assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. Students are given feedback, which, if necessary is linked to advice on the learning process.
- Student assessment is conducted by more than one examiner, where possible.
- Assessment is consistent, fairly applied to all students and conducted in accordance with the stated procedures.
- A formal procedure for student appeals is in place.
- The function of the academic advisor runs smoothly.

Documentation

- Sample of a fully completed questionnaire for the evaluation of the PSP by the students
- Regulations for dealing with students' complaints and appeals
- Regulation for the function of academic advisor
- Reference to the teaching modes and assessment methods

Study Programme Compliance

I. Findings

The PSP generally adopts a student-centered approach with flexible learning paths and varied delivery methods, but few diverse assessment techniques exist. Teaching involves face-to-face lectures, interactive sessions, and fully equipped classrooms to support in-person and distance learning. The program regularly evaluates and improves teaching methods, ensuring student autonomy, adequate guidance, and mutual respect in student-professor relationships. It includes lectures, seminars, lab exercises, fieldwork, and educational visits. Additionally, there is a complaint management system and a Study Advisor to enhance student support, though students were found to be insufficiently informed about the Study Advisor's role.

Students in the program are encouraged to develop individual skills through group work, assignments, and completing a Thesis, often leading to publications. The official language of the PSP is English, and all coursework, including these presentations, is conducted in English. Professors promote active participation in lectures to develop communication and interpersonal skills, and the program offers guidance from faculty and external collaborators.

The evaluation criteria and methods are published in advance. Detailed Thesis evaluation and publication guidelines are provided in the program's appendices, and professors communicate these methods to students through e-class and direct instruction. This ensures that students are well-informed about the evaluation criteria before exams.

Regular student satisfaction surveys are conducted each semester's end to measure teaching effectiveness. Postgraduate students anonymously complete digital questionnaires evaluating courses and instructors. Courses are assessed on content, teaching methods, materials, and relevance to the program's principles. Instructors are evaluated on their knowledge, teaching ability, preparation, use of modern literature, responsiveness, timely grading, and adherence to schedules. The Medical School OMEA collects and processes the data, using the results to improve program quality.

There is an official process for student appeals, and students can consult their academic advisor at any time for academic or personal issues.

Some graduates expressed their desire for more practical involvement in the program, while others felt the existing coursework was sufficient.

II. Analysis

The postgraduate program adopts a student-centered approach with flexible learning paths and varied delivery methods, including face-to-face lectures and

interactive sessions. The program supports student autonomy, guidance, and mutual respect, incorporating lectures, seminars, lab exercises, fieldwork, and educational visits.

There is a demand from students for more practical, hands-on experience, improved student information dissemination, and a preference for project-based assessment.

The PSP fosters a respectful, student-centered environment that values student feedback and promotes high-quality education.

III. Conclusions

The PSP program has several strengths, including diverse learning methods, hands-on experiences, and transparent evaluation processes. Thus, it is student-centered.

Panel Judgement

Principle 3: Student-centred	l learning,
teaching, and assessment	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- 1. The PSP is encouraged to include more hands-on practical experiences within its curriculum.
- 2. The PSP is encouraged to improve the information provided about the Study Advisor's role.

PRINCIPLE 4: STUDENT ADMISSION, PROGRESSION, RECOGNITION OF POSTGRADUATE STUDIES, AND CERTIFICATION.

INSTITUTIONS SHOULD DEVELOP AND APPLY PUBLISHED REGULATIONS COVERING ALL ASPECTS AND PHASES OF STUDIES (ADMISSION, PROGRESSION, THESIS DRAFTING, RECOGNITION AND CERTIFICATION).

All the issues from the beginning to the end of studies should be governed by the internal regulations of the academic units. Indicatively:

- the student admission procedures and the required supporting documents
- student rights and obligations, and monitoring of student progression
- internship issues, if applicable, and granting of scholarships
- the procedures and terms for the drafting of assignments and the thesis
- the procedure of award and recognition of degrees, the duration of studies, the conditions for progression and for the assurance of the progress of students in their studies
- the terms and conditions for enhancing student mobility

All the above must be made public in the context of the Student Guide.

Documentation

- Internal regulation for the operation of the Postgraduate Study Programme
- Research Ethics Regulation
- Regulation of studies, internship, mobility, and student assignments
- Degree certificate template

Study Programme Compliance

I. Findings

The Study Guide contains information about the application and admission process, as well as entry requirements. It also includes details about each course, such as its outline, ECTS credits, language of instruction, teaching modality, workload, learning outcomes, acquired competencies, and student performance evaluation. This information also applies to the Thesis. The study guide outlines student obligations, the expected duration of studies, and requirements for successfully completing the course and being awarded the corresponding degree. The ECTS credit system is used throughout the curriculum.

A Code of Research Ethics is available. The Diploma Supplement is issued without request in Greek and English.

The Study Guide does not provide any information regarding student rights, scholarships, and information on student mobility.

The Study Regulations ("Κανονισμός σπουδών"), written in Greek, contain detailed information about the admission procedure, registration process, and students' rights and obligations, including course evaluations, course duration, language of instruction, timetable, ECTS per subject, the maximum limit for absences, grading scale, progression (including deferral of studies), thesis process, and degree award. It also mentions the possibility of scholarships without further elaboration.

There is no separate Thesis Handbook, but all needed information is included in the Study Regulations guide.

Current students reported no issues with their registration and onboarding process. However, they appear not fully aware of the UoP supporting structures, such as the Student Councillor, scholarships, and mobility programs.

The PSP has hosted international students through the Erasmus+ program, but no PSP students have participated in the Erasmus+ exchange at a foreign university.

II. Analysis

Information about the PSP regulations is reasonably comprehensive.

Although student mobility is acknowledged, there is no evidence that home student participation is encouraged. PSP students' chronic lack of participation in the Erasmus+ program is acknowledged.

The information provided to new students as part of their onboarding is of limited effectiveness.

III. Conclusions

The Study Guide and the PSP Study Regulations are informative and fully compliant with HAHE's requirements when taken together.

Panel Judgement

Principle 4: Student admission, progression, recognition	
of postgraduate studies and certification	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- 1. The PSP is encouraged to promote student mobility by proactively disseminating information about its students' participation in the Erasmus+ program.
- 2. The Study Regulations should be available in English, which is the language of the PSP.

PRINCIPLE 5: TEACHING STAFF OF POSTGRADUATE STUDY PROGRAMMES

INSTITUTIONS SHOULD ASSURE THEMSELVES OF THE LEVEL OF KNOWLEDGE AND SKILLS OF THEIR TEACHING STAFF, AND APPLY FAIR AND TRANSPARENT PROCESSES FOR THEIR RECRUITMENT, TRAINING AND FURTHER DEVELOPMENT.

The Institution should attend to the adequacy of the teaching staff of the academic unit teaching at the PSP, the appropriate staff-student ratio, the appropriate staff categories, the appropriate subject areas, the fair and objective recruitment process, the high research performance, the training-development, the staff development policy (including participation in mobility schemes, conferences, and educational leaves-as mandated by law).

More specifically, the academic unit should set up and follow clear, transparent and fair processes for the recruitment of properly qualified staff for the PSP and offer them conditions of employment that recognise the importance of teaching and research; offer opportunities and promote the professional development of the teaching staff; encourage scholarly activity to strengthen the link between education and research; encourage innovation in teaching methods and the use of new technologies; promote the increase of the volume and quality of the research output within the academic unit; follow quality assurance processes for all staff (with respect to attendance requirements, performance, self-assessment, training, etc.); develop policies to attract highly qualified academic staff.

Documentation

- Procedures and criteria for teaching staff recruitment
- Employment regulations or contracts, and obligations of the teaching staff
- Policy for staff support and development
- Individual performance of the teaching staff in scientific-research and teaching work, based on internationally recognised systems of scientific evaluation (e.g. Google Scholar, Scopus, etc.)
- List of teaching staff including subject areas, employment relationship, Institution of origin,
 Department of origin

Study Programme Compliance

I. Findings

Professional development opportunities exist for the teaching staff in the PSP, while faculty members can take educational leaves for conferences and research activities, both domestically and internationally, and participate in the Erasmus+ program for teaching or training. Also, the University promotes and recognizes research through the "Alexandria" application, which tracks publications and citations and offers awards for outstanding publications and teaching. These initiatives aim to enhance the teaching staff's professional growth, specialization, and international recognition. Also, teaching staff mobility is encouraged in the

PSP program, where faculty members can participate in the Erasmus+ program for teaching or training, take educational leaves for domestic and international conferences and research activities, and engage in international research programs and collaborations.

The workload of the teaching staff is deemed appropriate, allowing participation in research activities. There is a substantial connection between teaching and research. This connection is achieved through the "Research Methodology" course, which equips students with essential research skills, and the significant research activity of instructors, which is integrated into their teaching. Students also undertake theses to develop their research skills and attend thesis presentations and seminars, promoting a continuous feedback loop and active participation in research.

The PSP conducts regular student satisfaction surveys to measure teaching effectiveness. Over the past decade, evaluation questionnaires for postgraduate courses have evolved from paper-based to electronic formats. The MODIP processes these anonymous surveys and analyzes the data to improve teaching quality. Annual surveys gather student feedback on various program aspects, including teaching and support.

II. Analysis

The PSP provides multiple opportunities for professional development. Faculty can apply for advancement, attend specialized training seminars, engage in research projects, and participate in initiatives that promote mobility and collaboration with other universities locally and internationally.

The increased workload of the teaching staff can limit research engagement, although the staff remains committed to their research responsibilities. There is a strong integration between teaching and research at PSP. Faculty incorporate their research into teaching, providing students with opportunities to engage in research projects.

III. Conclusions

The PSP faculty are highly qualified to teach the PSP courses. Students evaluate their instructors for all PSP courses.

Panel Judgement

Principle 5: Teaching staff of postgraduate study programmes	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

None.

PRINICPLE 6: LEARNING RESOURCES AND STUDENT SUPPORT

INSTITUTIONS SHOULD HAVE ADEQUATE FUNDING TO COVER THE TEACHING AND LEARNING NEEDS OF THE POSTGRADUATE STUDY PROGRAMME. THEY SHOULD –ON THE ONE HAND- PROVIDE SATISFACTORY INFRASTRUCTURE AND SERVICES FOR LEARING AND STUDENT SUPPORT, AND – ON THE OTHER HAND- FACILITATE DIRECT ACCESS TO THEM BY ESTABLISHING INTERNAL RULES TO THIS END (E.G. LECTURE ROOMS, LABORATORIES, LIBRARIES, NETWORKS, NETWORKS, CAREER AND SOCIAL POLICY SERVICES ETC.).

Institutions and their academic units must have sufficient resources and means, on a planned and long-term basis, to support learning and academic activity in general, so as to offer PSP students the best possible level of studies. The above means include facilities such as the necessary general and more specialised libraries and possibilities for access to electronic databases, study rooms, educational and scientific equipment, IT and communication services, support and counselling services.

When allocating the available resources, the needs of all students must be taken into consideration (e.g. whether they are full-time or part-time students, employed students, students with disabilities), in addition to the shift towards student-centred learning and the adoption of flexible modes of learning and teaching. Support activities and facilities may be organised in various ways, depending on the institutional context. However, the internal quality assurance proves -on the one hand- the quantity and quality of the available facilities and services, and -on the other hand- that students are aware of all available services.

In delivering support services, the role of support and administration staff is crucial and therefore this segment of staff needs to be qualified and have opportunities to develop its competences.

Documentation

- Detailed description of the infrastructure and services made available by the Institution to the academic unit for the PSP, to support learning and academic activity (human resources, infrastructure, services, etc.) and the corresponding firm commitment of the Institution to financially cover these infrastructure-services from state or other resources
- Administrative support staff of the PSP (job descriptions, qualifications and responsibilities)
- Informative / promotional material given to students with reference to the available services
- Tuition utilisation plan (if applicable)

Study Programme Compliance

I. Findings

Teaching takes place face-to-face in classrooms, which also provides distance learning capabilities, which were utilized during COVID-19. It takes place both at the UoP campus and at the University Hospital.

The PSP students have access to the supporting resources provided by the university, such as sports/cultural facilities, including indoor sports halls and

swimming pools, outdoor stadiums, radio stations, WebTV, and museums. There is also a career advice office, student care services with catering and accommodation facilities, psychological counseling, and health care. There is also an alumni office. The students have access to the e-class and administrative support online services. Student mobility is provided via the Erasmus+ program.

The students and graduates were not aware of the UoP alumni or career office services nor of the Student Councillor and Study Advisor.

II. Analysis

The PSP has adequate infrastructure to deliver teaching and training to its annual student cohort. The classrooms and laboratories meet basic requirements, including Wi-Fi and audiovisual facilities for classrooms and necessary infrastructure for laboratories.

There is a lack of communication between the PSP students and the available UoP support services.

III. Conclusions

The PSP has appropriate and sufficient resources for the number of students enrolled.

Panel Judgement

Principle 6: Learning resources and s support	student
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- 1. The PSP should increase efforts to inform its students about the supporting services available by the institution.
- 2. The PSP should increase efforts to make the alumni and career advice office services more effective for its students.

PRINCIPLE 7: INFORMATION MANAGEMENT

INSTITUTIONS BEAR FULL RESPONISBILITY FOR COLLECTING, ANALYSING AND USING INFORMATION, AIMED AT THE EFFICIENT MANAGEMENT OF POSTGRADUATE STUDY PROGRAMMES AND RELATED ACTIVITIES, IN AN INTEGRATED, EFFECTIVE AND EASLILY ACCESSIBLE WAY.

Institutions are expected to establish and operate an information system for the management and monitoring of data concerning students, teaching staff, course structure and organisation, teaching and provision of services to students.

Reliable data is essential for accurate information and decision-making, as well as for identifying areas of smooth operation and areas for improvement. Effective procedures for collecting and analysing information on postgraduate study programmes and other activities feed data into the internal system of quality assurance.

The information collected depends, to some extent, on the type and mission of the Institution. The following are of interest:

- key performance indicators
- student population profile
- student progression, success, and drop-out rates
- student satisfaction with their programmes
- availability of learning resources and student support

A number of methods may be used to collect information. It is important that students and staff are involved in providing and analysing information and planning follow-up activities.

Documentation

- Report from the National Information System for Quality Assurance in Higher Education (NISQA) at the level of the Institution, the department, and the PSP
- Operation of an information management system for the collection of administrative data for the implementation of the PSP (Students' Record)
- Other tools and procedures designed to collect data on the academic and administrative functions of the academic unit and the PSP

Study Programme Compliance

I. Findings

Student progression is monitored by a dedicated platform (" $\Psi\eta\phi\iota\alpha\kappa$ o A $\lambda\mu\alpha$ "). Student evaluation questionnaire surveys, data collection, and analysis take place using a digital system and are collected by MODIP. The PSP has access to the national system for quality data (OΠΕΣΠ). The teaching staff publications and citations are available through a digital plαtform("A λ εξάνδρεια").

The OMEA and the MODIP are mainly responsible for the operation of the quality assurance-associated systems. The PSP collects data related to

graduation/retention rates and percentages of students completing the student evaluations but does not report them as KPIs. The graduation/retention rates are 27.8% for 2019-20, 58.3% for 2020-21, 100% for 2021-22, and 88.9% for 2022-23.

II. Analysis

The PSP has developed a satisfactory information management system for its current students.

The students' evaluations for the courses use questionnaires with formulated questions. The data are analyzed appropriately but not included in the KPIs.

III. Conclusions

The PSP collects and analyses all data related to quality assurance and its performance against established KPIs, as well student evaluation questionnaires and graduate satisfaction surveys.

The PSP collects and analyses all data related to quality assurance and its performance but lacks reporting them as KPIs.

There has been a significant improvement in the graduation and retention rates for the most recent academic years.

Panel Judgement

Principle 7: Information management	
Fully compliant	
Substantially compliant	Х
Partially compliant	
Non-compliant	

Panel Recommendations

1. The PSP must improve its KPIs by including information on graduation/retention rates and

student satisfaction survey statistics.

PRINCIPLE 8: PUBLIC INFORMATION CONCERNING THE POSTGRADUATE STUDY PROGRAMMES

INSTITUTIONS SHOULD PUBLISH INFORMATION ABOUT THEIR TEACHING AND ACADEMIC ACTIVITIES RELATED TO THE POSTGRADUATE STUDY PROGRAMMES IN A DIRECT AND READILY ACCESSIBLE WAY. THE RELEVANT INFORMATION SHOULD BE UP-TO-DATE, OBJECTIVE AND CLEAR.

Information on the Institutions' activities is useful for prospective and current students, graduates, other stakeholders, and the public.

Therefore, Institutions and their academic units must provide information about their activities, including the PSP they offer, the intended learning outcomes, the degrees awarded, the teaching, learning and assessment procedures applied, the pass rates, and the learning opportunities available to their students. Information is also provided on the employment perspectives of PSP graduates.

Documentation

- Dedicated segment on the website of the department for the promotion of the PSP
- Bilingual version of the PSP website with complete, clear and objective information
- Provision for website maintenance and updating

Study Programme Compliance

I. Findings

The School of Medicine and the Department of Physics websites are available in Greek and English, whereas the PSP website is only available in English, which is the PSP's official language. PSP website contains copies of the PSP founding law and its re-establishment (Government Gazette Issue number 3922, 10 September 2018 and number 1627, 10 May 2018), information on the PSP administration, which lists the names of the PSP Steering Committee members, a brief description of the PSP, its duration of studies and its structure, information for prospective applicants, which includes the entry requirements, links to the syllabi for each PSP courses, the PSP infrastructure, learning methods and educational resources, the academic calendar and information on the final exams, a link to the PSP quality assurance policy, information on PSP Thesis and recent publications, as well as a news section.

The PSP website also provides contact information for the public, and the PSP faculty CVs are posted there.

II. Analysis

The PSP website is comprehensive and provides ample information about the program. It is well-maintained, up-to-date, and user-friendly. This effectively showcases the PSP, attracting positive attention in Greece and worldwide. The PSP deserves commendation for maintaining such an informative and user-

friendly website.

III. Conclusions

The PSP fully satisfies Principle 8.

Panel Judgement

Principle 8: Public information concerning the postgraduate study programmes	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

1. The PSP could consider posting videos related to the program, highlighting its facilities, its faculty, and the PSP student successes.

PRINCIPLE 9: On-GOING MONITORING AND PERIODIC INTERNAL EVALUATION OF POSTGRADUATE STUDY PROGRAMMES

INSTITUTIONS AND ACADEMIC UNITS SHOULD HAVE IN PLACE AN INTERNAL QUALITY ASSURANCE SYSTEM FOR THE AUDIT AND ANNUAL INTERNAL REVIEW OF THEIR POSTGRADUATE STUDY PROGRAMMES, SO AS TO ACHIEVE THE OBJECTIVES SET FOR THEM, THROUGH MONITORING AND POSSIBLE AMENDMENTS, WITH A VIEW TO CONTINUOUS IMPROVEMENT. ANY ACTIONS TAKEN IN THE ABOVE CONTEXT SHOULD BE COMMUNICATED TO ALL PARTIES CONCERNED.

The regular monitoring, review, and revision of postgraduate study programmes aim at maintaining the level of educational provision and creating a supportive and effective learning environment for students.

The above comprise the evaluation of:

- a) the content of the programme in the light of the latest research in the given discipline, thus ensuring that the PSP is up to date
- b) the changing needs of society
- c) the students' workload, progression and completion of the postgraduate studies
- d) the effectiveness of the procedures for the assessment of students
- e) the students' expectations, needs and satisfaction in relation to the programme
- f) the learning environment, support services, and their fitness for purpose for the PSP in question Postgraduate study programmes are reviewed and revised regularly involving students and other stakeholders. The information collected is analysed and the programme is adapted to ensure that it is up-to-date.

Documentation

- Procedure for the re-evaluation, redefinition and updating of the PSP curriculum
- Procedure for mitigating weaknesses and upgrading the structure of the PSP and the learning process
- Feedback processes concerning the strategy and quality goal setting of the PSP and relevant decision-making processes (students, external stakeholders)
- Results of the annual internal evaluation of the PSP by the Quality Assurance Unit (QAU), and the relevant minutes

Study Programme Compliance

Findings

The PSP self-assessment procedure takes place annually with the support of the MODIP, and its quality assurance targets are set annually. The findings of the PSP self-assessment are shared within the academic units of the School of Medicine and the Department of Physics. The PSP is evaluated using students' course evaluations. The EAAP found no information on surveys from external stakeholders and its graduates.

II. Analysis

The PSP collects data, which it uses to improve. The students' evaluation surveys serve as an indirect assessment method for the PSP. The lack of satisfaction surveys from the graduates and external stakeholders hampers the program assessment. Students, graduates, and other stakeholders do not appear to have been directly involved in the decision-making processes for curriculum improvements.

The number of students participating in the course evaluations is as follows: 56% in Fall 2020, 40% in Spring 2021, 6% in Fall 2021, 0% in Spring 2022, 37% in Fall 2022, and 43% in Spring 2023. The student survey results showed that the PSP students are very satisfied with the PSP course objectives and the material covered.

III. Conclusions

The PSP is assessed predominantly through student surveys. However, it does not fully satisfy Principle 9 due to the lack of a feedback mechanism from its external stakeholders, the nonparticipation of its graduates in the surveys, and the absence of engagement of students, graduates, and external stakeholders in its improvements.

Panel Judgement

Principle 9: On-going monitoring and periodic internal evaluation of postgraduate study programmes	
Fully compliant	
Substantially compliant	Х
Partially compliant	
Non-compliant	

Panel Recommendations

1. The PSP must develop satisfaction surveys for its graduates and external stakeholders

involved with the program.

- 2. The PSP must assist in increasing participation in satisfaction surveys.
- 3. The PSP may consider developing an Advisory Board with faculty, students, graduates, and external stakeholders to assist in the program improvements actively.

PRINCIPLE 10: REGULAR EXTERNAL EVALUATION OF POSTGRADUATE STUDY PROGRAMMES

THE POSTGRADUATE STUDY PROGRAMMES SHOULD REGULARLY UNDERGO EVALUATION BY PANELS OF EXTERNAL EXPERTS SET BY HAHE, AIMING AT ACCREDITATION. THE TERM OF VALIDITY OF THE ACCREDITATION IS DETERMINED BY HAHE.

HAHE is responsible for administrating the PSP accreditation process which is realised as an external evaluation procedure, and implemented by panels of independent experts. HAHE grants accreditation of programmes, based on the Reports delivered by the panels of external experts, with a specific term of validity, following to which, revision is required. The quality accreditation of the PSP acts as a means for the determination of the degree of compliance of the programme to the Standards, and as a catalyst for improvement, while opening new perspectives towards the international standing of the awarded degrees. Both academic units and Institutions must consistently consider the conclusions and the recommendations submitted by the panels of experts for the continuous improvement of the programme.

Documentation

 Progress report of the PSP in question, on the results from the utilisation of possible recommendations included in the External Evaluation Report of the Institution, and in the IQAS Accreditation Report, with relation to the postgraduate study programmes

Study Programme Compliance

I. Findings

The PSP has not previously been subjected to an external evaluation for accreditation purposes. However, it provides a progress report on parts of the UoP accreditation, which occurred on December 7–9, 2015, and pertains to the PSP.

II. Analysis

The current evaluation is the PSP's first external accreditation review. Some recommendations from the 2015 review also apply to the department's PSPs. Since then, several changes have been implemented to the PSP for its improvement following the institution's review. The EEAP found that the PSP faculty and supporting staff were very helpful in answering the panel's questions during the current review. Moreover, they showed that they understand the importance of the accreditation process and the panel's recommendations. The PSP follows a commonly used procedure for utilizing the outcomes of the external evaluation. These outcomes are shared with the PSP Steering Committee, the OMEA, the Heads of the Department of Physics and Medicine, and the MODIP.

III. Conclusions

An external committee has not previously evaluated the PSP for accreditation purposes. However, the PSP has implemented several recommendations from the 2015 institution's external review. The EEAP found that the PSP is in full compliance with Principle 10.

Panel Judgement

Principle 10: Regular external evaluation of postgraduate study programmes	
Fully compliant	Х
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

None.

PART C: CONCLUSIONS

I. Features of Good Practice

- 1. The PSP is known for its high-quality and scientifically sound academic opportunities that pave the way for its graduates' success.
- 2. The program's use of English enables non-Greek-speaking students to participate and enriches the PSP international appeal.
- 2. The PSP profoundly impacts the overall experience of students and graduates, fostering a positive environment. The enthusiasm of students, graduates, employers, and other stakeholders was commendable.
- 3. Several PSP faculty members have international reputations, and all are enthusiastic and dedicated to their mission.
- 4. Employers and social partners praised the PSP and believe there is a clear need for such graduates.

5. This PSP's presence promotes the School of Medicine, the Department of Physics, and the UoP.

II. Areas of Weakness

- 1. Several important KPIs are missing.
- 2. There is no feedback mechanism involving students, graduates, and stakeholders for the continuous improvement of the material taught in the PSP.
- 3. The Study Regulation is in Greek and not in the PSP language, which is English.
- 4. No satisfaction surveys exist for the PSP graduates and external stakeholders involved with the program.
- 5. The PSP students do not participate in the Erasmus+ program.
- 6. The PSP students are not well-informed about the UoP supporting services.

III. Recommendations for Follow-up Actions

- 1. The PSP must expand its KPIs to measure graduation/retention rates and student satisfaction survey statistics.
- 2. The PSP must develop surveys for its graduates and external stakeholders.
- 3. The PSP should consider establishing a feedback mechanism involving students, graduates, and stakeholders to continuously improve the material taught in the PSP.
- 4. The PSP is encouraged to include more hands-on practical experiences within its curriculum.
- 5. The PSP is encouraged to improve the information provided about the Study Advisor's role.
- 6. The PSP should increase efforts to inform its students about the supporting services available by the institution.

IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are:

2, 3, 4, 5, 6, 8, 10.

The Principles where substantial compliance has been achieved are:

1, 7, 9.

The Principles where partial compliance has been achieved are:

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The Principles where failure of compliance was identified are:

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Overall Judgement	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

The members of the External Evaluation & Accreditation Panel

Name and Surname	Signature
Name and Surname	Signature

DIMAKIS NIKOLAOS (NICHOLAS)

MANOLOPOULOS SPYROS

SKARLATOS YANI

GKAGKAS VASILEIOS