Αριστείδου 1 & Ευριπίδου 2 • 10559 Αθήνα | 1 Aristidou str. & 2 Evripidou str. • 10559 Athens, Greece
**T.** +30 210 9220 944 • **F.** +30 210 9220 143 • **E.** secretariat@ethaae.gr • www.ethaae.gr

# Accreditation Report
# for the Postgraduate Study Programme of:

Studies in Mathematics

Department: Mathematics

Institution: University of the Aegean

Date: 04/02/2025

***NOTES***

- *Please do not modify styles, fonts, and language in this template.*
- *If you wish to paste text, please use the **'paste text only'** option.*
- *For text input, please use the 'normal' style or start writing in the lorem ipsum sample text.*

Report of the Panel appointed by the HAHE to undertake the review of the Postgraduate Study Programme of **Studies in Mathematics** of the **University of the Aegean** for the purposes of granting accreditation

TABLE OF CONTENTS

**Part A: Background and Context of the Review .....5**

I. The External Evaluation & Accreditation Panel .....5

II. Review Procedure and Documentation .....6

III. Postgraduate Study Programme Profile .....8

**Part B: Compliance with the Principles .....10**

**PRINCIPLE 1: QUALITY ASSURANCE POLICY AND QUALITY GOAL SETTING FOR THE POSTGRADUATE STUDY PROGRAMMES OF THE INSTITUTION AND THE ACADEMIC UNIT .....10**

**PRINCIPLE 2: DESIGN AND APPROVAL OF POSTGRADUATE STUDY PROGRAMMES .....14**

**PRINCIPLE 3: STUDENT-CENTRED LEARNING, TEACHING, AND ASSESSMENT .....18**

**PRINCIPLE 4: STUDENT ADMISSION, PROGRESSION, RECOGNITION OF POSTGRADUATE STUDIES, AND CERTIFICATION. .....21**

**PRINCIPLE 5: TEACHING STAFF OF POSTGRADUATE STUDY PROGRAMMES .....25**

**PRINICPLE 6: LEARNING RESOURCES AND STUDENT SUPPORT .....28**

**PRINCIPLE 7: INFORMATION MANAGEMENT .....31**

**PRINCIPLE 8: PUBLIC INFORMATION CONCERNING THE POSTGRADUATE STUDY PROGRAMMES .....34**

**PRINCIPLE 9: ON-GOING MONITORING AND PERIODIC INTERNAL EVALUATION OF POSTGRADUATE STUDY PROGRAMMES .....36**

**PRINCIPLE 10: REGULAR EXTERNAL EVALUATION OF POSTGRADUATE STUDY PROGRAMMES .....39**

**Part C: Conclusions .....40**

I. Features of Good Practice .....40

II. Areas of Weakness .....40

III. Recommendations for Follow-up Actions .....41

IV. Summary & Overall Assessment .....41

# 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 Studies in Mathematics of the **University of the Aegean** comprised the following five (5) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

1. DIMAKIS NIKOLAOS (NICHOLAS) (Chair)
   *(Title, Name, Surname)*
   Department of Physics and Astronomy, College of Sciences, University of Texas Rio Grande Valley (UTRGV)
   *(Institution of origin)*

2. FRIDERIKOS VASILIS
   *(Title, Name, Surname)*
   King's College London (KCL), University of London
   *(Institution of origin)*

3. MICHAILIDIS GEORGE
   *(Title, Name, Surname)*
   Department of Statistics and Data Science, UCLA
   *(Institution of origin)*

4. ΓΚΑΓΚΑΣ ΒΑΣΙΛΕΙΟΣ
   *(Title, Name, Surname)*
   Aristotle University of Thessaloniki
   *(Institution of origin)*

5. 
   *(Title, Name, Surname)*

   *(Institution of origin)*

## II. Review Procedure and Documentation

*Please refer briefly to the Panel preparation for the postgraduate study programme review, as well as to the documentation provided and considered by the Panel. State the dates of the review and describe the review and the meetings held. Feel free to mention any additional information regarding the procedure, as appropriate.*

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 postgraduate study program (PSP) "Studies in Mathematics" from the University of the Aegean (UA). 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. 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, including the private meetings with the EEAP members.

The EEAP met online for the first time on Monday 27th of January 2025, 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 formally began at 16:00 EET. During 16:00–17:00 EET, the EEAP met with the Director of the PSP Mathematics, Prof. Konstantinos Gkikas, the Head of the Department of Mathematics, Prof. Michael Anousis, the Director of the Quality Assurance Unit (MODIP) and Vice Rector of Administrative and Academic Affairs, Associate Prof. Stylianos Xanthopoulos, the MODIP member Prof. Agapios Platis, the MODIP staff Ms. Maria Leventeli, and the Internal Evaluation Unit (OMEA) member Prof. Christos Nikolopoulos. The Director of the PSP gave a short presentation on the program and answered the EEAP questions.

During 17:00–17:30 EET, the EEAP met with Ms. Aggeliki Varsami, Head of the Department of Mathematics Secretariat and Mr. Nikolaos Papaloukas, Special Technical Laboratory Staff, to discuss the administrative and laboratory needs of the PSP. 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. 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 January 28, 2025, between 15:00 and 15:45 EET, the EEAP met with the PSP teaching staff, Prof. and OMEA member, Kostas Housiadas, Prof. and OMEA member, Vasileios Metaftsis, Associate Prof. and OMEA member, Theodosis Dimitrakos, Associate Prof. and OMEA and Steering Committee member, Agapitos Hatzinikitas, and Associate Prof. and OMEA member, Vassilis Koukouloyannis to discuss the PSP professional development opportunities, the mobility, and the teaching methods. Later, the same day, during 16:00–16:45 EET, the EEAP met with seven PSP students to discuss their satisfaction and study experiences, followed by six PSP graduates during 17:30–18.15 EET to discuss their experiences and career paths. During 18:30–19.15 EET the EEAP met with the PSP employers and social partners Dr. Konstantinos Damianidis, Scientific director of the Museum of Aegean Boatbuilding and Maritime Crafts and Chair of the Association of Friends of the Museum of Aegean Boatbuilding and Maritime Crafts, Ms. Elena Housni, special assistant to the Mayor of the municipality of Eastern Samos, Mr. Orestis Valis, member of the board of directors of foundation “Nikolaou-Dimitriou”, and Ms. Sofia Koumoutsi, President of the Hellenic Mathematical Society in the Branch of Samos, to discuss the PSP relations with external stakeholders from the private and the public sector. The EEAP held a private meeting between 19:30 and 20:00 EET to discuss the virtual visit's outcomes and prepare the debriefing report. The debriefing took place from 20:00 to 20:30 EET, during which the EEAP met with the Director of the PSP, the Head of the Department of Physics, the Head of the MODIP, as well as with MODIP and OMEA members. In this final meeting, the EEAP provided an overview of some of the conclusions reached.

On this and the following days, the EEAP received additional information from MODIP and evaluated the content to complete the draft of the accreditation report.

## III. Postgraduate Study Programme Profile

*Please provide a brief overview of the postgraduate study programme with reference to the following: history, academic remit, duration of studies, qualification awarded, employment opportunities, orientation challenges or any other key background information. Also, you may provide a short description of the home Department and Institution, with reference to student population, campus or any other facts, as deemed appropriate.*

The PSP commenced in the academic year 2001-2002 as "Mathematical Modeling in Natural Sciences and Modern Technologies" (ΦΕΚ: 1777/Β/31.12.2001), whereas in the academic year 2014-2015 it was renamed as "Studies in Mathematics" (ΦΕΚ: 2304/Β/24,08,2015) and was re-founded on 2018 (Φ.Ε.Κ. 1679/15.05.2018). The UA Senate approved its last revision in the meeting 34/9/25.04.2018 and the UA Rector on 27/4/2018. In the academic year 2023-2024, the PSP had 14 faculty from the permanent faculty of the UA Department of Mathematics and one external personnel with a teaching assignment.

The PSP is a three-semester 90 ECTS program. The duration of studies can be extended to six semesters at maximum unless there are extraordinary reasons for further extension. Part-time students can complete their studies in twelve semesters at maximum. The courses are delivered online synchronously, whereas the exams are face-to-face. The PSP has two specializations: Pure Mathematics and Applied Mathematics. The PSP courses are grouped into four categories: Pure Mathematics (group A), Applied Mathematics (group B), and elective courses (groups C and D). The PSP Thesis is 30 ECTS and can be in Greek or English.

The medium of instruction is Greek.

The PSP objectives are:
(a) The advancement of scientific knowledge and the development of high-level specialized research in Theoretical and Applied Mathematics,
(b) The provision of the necessary knowledge and research methodologies to prospective doctoral students in the scientific areas of the PSP,
(c) The training of highly skilled and competitive scientists for meeting the educational, research, and developmental needs of the country in an era where multidisciplinary knowledge, with Mathematics at its core, defines scientific and technological advancements.

The maximum number of admitted students to the PSP is 30 each year. Prospective applicants must be graduates from departments of Schools of Science, Polytechnic Schools, and Schools of Economics from Greek universities and equivalent institutions abroad or graduates from Higher Military Educational Institutions (ASEI), graduates of the Hellenic Police Officers' Academy, the Fire Academy Officers' School, and the Cadet Officers' School of

the Hellenic Coast Guard or graduates of Technological Educational Institutes (TEIs) in a related field (subject to a written examination) or graduates of Schools of Health Sciences (subject to a written examination). Final-year students of Greek institutions may also apply for admission to the PSP provided they have completed all degree requirements by the PSP enrollment date.

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

*Please comment on the compliance with the Principle. Specifically: Please describe the findings related to the Principle, analyse, and conclude your judgement. Findings, analysis of judgement and conclusions should be developed below in three distinct parts.*

## I. Findings

The PSP operates within a well-established quality assurance framework, as confirmed by the provided documentation and discussions during the meetings. Essential mechanisms are in place to uphold both national and internationally recognized quality standards, ensuring the programme maintains high academic integrity, including the qualifications awarded to students. The fact that in-person examinations are taking place is a strong quality assurance indicator. The overall commitment from members of its staff is reflected in the programme's overall design and approval processes.
Modifications to module content follow a structured framework, with changes implemented at designated times within the academic year. Final decisions regarding module amendments are made during departmental meetings, and all staff members must adhere to this formalized process for all taught modules within the PSP programme. While the Programme Director oversees all aspects of the PSP's operation, decision-making is conducted collectively, incorporating the perspectives of all teaching staff.

There are preliminary discussions regarding the potential introduction of new modules, such as Machine Learning and/or Artificial Intelligence, to enhance the programme's visibility. However, these ideas remain in the early stages and may necessitate the recruitment of additional members of staff.

Recently, the PSP transitioned to a fully online mode of delivery, with all lectures conducted remotely, while examinations continue to take place in person. Attendance is not mandatory, leading to cases where students engage solely in assessments without attending any lectures. Assignment extensions are granted at the module level, with no overarching policy governing penalties for late submissions or the criteria for granting extensions. As a result, students may receive deadline extensions without submitting a formal mitigating circumstances request.
There are no minimum student enrollment requirements for running a module. However, with the increasing student cohort due to the transition to online delivery, the maximum enrollment capacity (30 students per module) has been reached, ensuring adequate module participation. The programme does not impose mandatory modules, offering a sufficient range of options to accommodate diverse student needs and academic pathways.

The taught modules align closely with the expertise of the department's academic staff, ensuring the necessary depth and breadth of knowledge across specialized subject areas at the postgraduate level. Additionally, there is evidence of integration between research activities and teaching.

While graduation rates are relatively low, the Director of the PSP and the teaching staff are fully aware of this concern and remain committed to providing

comprehensive support to affected students to enhance their academic success.

## II. Analysis

The teaching staff possess extensive experience in delivering this programme, which has been running for over two decades in various formats. In recent years, there have been adjustments to the programme's structure, and as of the 2024/25 academic year, the PSP is offered in a fully online mode, with the exception of in-person examinations. This transition introduces both new challenges and opportunities for the programme.
While there are instances where research is integrated into teaching and learning activities, this is not yet a widespread practice across the PSP. Although the programme is designed to establish a strong theoretical foundation across its core subject areas, there remains considerable potential to incorporate state-of-the-art advancements into the curriculum.

The process of updating module content was thoroughly discussed during the meetings, and it was evident that well-defined and robust procedures are in place to ensure that modifications are carefully considered and aligned with the programme's objectives and scope.

As previously mentioned, attendance is not monitored, making it difficult to track the proportion of students who consistently engage with lectures and tutorials. This lack of engagement may be linked to the programme's low completion rates. Specifically, in the 2022/23 cohort, only 6 out of 27 students have graduated to date, which is low. This issue is multifaceted but is partly attributed to the fact that the majority of students are full-time working professionals and mature learners. For instance, in the 2022/23 academic year, approximately 62% of students were over the age of 36, a demographic that may be more prone to disengagement.

Addressing these challenges may require, inter alia, a review of the admissions process. Introducing additional screening criteria or requesting supplementary information from applicants could help identify potential risks of disengagement and mitigate this issue at an early stage.

## III. Conclusions

This PSP programme is well-established and delivered by faculty members from the UA Department of Mathematics, who are recognized experts in their respective fields. The programme has received highly positive feedback not only from students but also from various stakeholders. It adheres to the required quality assurance policies, ensuring the delivery of a high-quality academic experience. Consequently, the EEAP is satisfied that a robust quality assurance framework is in place as part of the overall strategy for the design and approval of

modules within this programme of study.

With the transition to a fully online mode of delivery, the PSP programme has entered a new phase that presents both challenges and opportunities. A key concern is the notably low on-time completion rates. Mature students who participate remotely appear more susceptible to disengagement due to the programme's intensive and demanding nature, often as a result of unforeseen personal or professional circumstances. However, the online format also broadens accessibility, enabling many students to enroll who might not have had the opportunity otherwise.

**Panel Judgement**

*Please tick one of the following:*

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

**Panel Recommendations**

*Please provide your recommendations with regard to issues that need to be addressed, as appropriate.*

1. The PSP should revisit admission requirements and selection to mitigate low completion rates at the entrance stage
2. The PSP should create a policy related to how extensions and durations to course assignments are granted
3. The PSP should increase efforts to enhance the students' participation in the course evaluations
4. The PSP should improve its student graduation rate.

## 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**

*Please comment on the compliance with the Principle. Specifically: Please describe the findings related to the Principle, analyse, and conclude your judgement. Findings, analysis of judgement and conclusions should be developed below in three distinct parts.*

**I. Findings**

The PSP has an acceptable process for the design, revision, and its approval. More specifically, the overall structure and content of the PSP "Studies in Mathematics" is well established and it is the result of accumulated experience of running this postgraduate programme. The total number of ECTS credits required to obtain the MS degree is 90 ECTS. The courses offered at each academic year might slightly change but in any case, they are formally determined as part of a departmental meeting. The minimum duration of study for the PSP is three academic semesters, including the time required for the completion of the MS Thesis. The nominal mode of attendance is full-time. However, it is possible for full-time working postgraduate students to study part-time (or those that request it). The minimum duration for part-time study is 6 (six) semesters. There are also no fees for the programme. However students independently of their location are required to take the exams in-person at UA. The no-fees structure is inline with other similar postgraduate programmes in the country. Based on the discussions with both members of staff that teach in the programme and the professional administration staff it was evident that they can sufficiently cover all aspects related to teaching and administration in the programme. To this end, the programme could be deemed as sustainable. Furthermore, the positive feedback and endorsement of the programme from stakeholders makes it also a necessity for the local community.

Access to 6 (six) modules on the Portal has been provided (Aegean Moodle) and it was evident that the different modules provide a detailed treatment of the subject (in essence for those 6 modules the EEAP could enter as guests). Each module has a detailed summary of the main aims and objectives as well as a synopsis of the learning outcomes. Modules designed to be self-contained. However, significant bibliography is provided to allow students to further immerse into the different topics. In some instances, like for example in the History of Mathematics module the material also includes film excerpts which can be deemed as supplementary to the core readings but highly beneficial. The assessment depends on the module. However, most of the modules incorporate an in-person examination component, and all modules incorporate courseworks.

## II. Analysis

The PSP under consideration has been in operation for more than two decades and could be considered as a well-established one. The program has well-defined learning outcomes. Its modules offer both a theoretical view on modern mathematics, as well as applied mathematics. Hence, it can be deemed as a well-rounded course.

The vast majority of the students joining the PSP program have a first degree in Mathematics. However, there are also students with different backgrounds, such as civil or chemical engineering ones.

Coursework assignments are generally designed to be completed individually. However, based on discussions with students, there appears to be a strong interest in incorporating group projects. Group projects create an environment that mirrors real-world dynamics, preparing students for success in collaborative settings (which is the typical working scenario in the private sector), whilst also improving problem solving abilities. Furthermore, group projects offer a valuable opportunity to integrate transferable skills, as students are encouraged to present their project results to their peers or, where appropriate, to a broader audience within the Department of Mathematics. Additionally, from the sample modules reviewed on AegeanMoodle, it is evident that considerable effort has been invested in developing high-quality teaching materials and supplementary resources for each module.

The local stakeholders whom the EEAP engaged with during the e-visit demonstrated strong support for the programme. However, their involvement appears to be informal, with interactions occurring on an ad hoc basis. Their engagement could be enhanced by forming an Advisory Board. Such a board could provide structured feedback and, where possible, incorporate industrial partners whose expertise and interests align with the programme's objectives.
According to the EEAP, the content of this PSP could also appeal to international students. Therefore, introducing some courses in English initially, and potentially the entire program at a later stage, would enhance the program's value and attractiveness. This approach would also create an opportunity to advance the internationalization of the PSP and the UA at large.

## III. Conclusions

The EEAP concludes that the PSP is fully compliant with this criterion.

### Panel Judgement

*Please tick one of the following:*

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

**Panel Recommendations**

*Please provide your recommendations with regard to issues that need to be addressed, as appropriate.*

1. The departmental colloquia should be available to the PSP students remotely and in-person.
2. The local stakeholders should be more formally engaged with the PSP through the formation of an Advisory Board.

## 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

*Please comment on the compliance with the Principle. Specifically: Please describe the findings related to the Principle, analyse, and conclude your judgement. Findings, analysis of judgement and conclusions should be developed below in three distinct parts.*

## I. Findings

The PSP has launched an educational platform called AegeanMoodle, which offers resources for the program's courses, including assessment methods, student responsibilities for each course, and program updates.

Examinations for the PSP's courses are primarily conducted through written tests held in person on the island of Samos, where the program is based. In some classes, the final grade may also be supplemented by projects, problem sets, or an in-depth study and presentation of a specific topic.

Some graduates have expressed interest in more group projects to further enhance student collaboration.

Course delivery is modern and exclusively through distance learning. During the courses, instructors encourage dialogue with students, allowing them to ask questions and clarify any uncertainties.

Students suggested implementing a weekly session to address additional queries and the need for course lectures to be recorded so they can access them asynchronously if they choose.

In one-to-one interviews with current and former students, they noted that the program helped them broaden their understanding in the scientific area of mathematics. However, they expressed a desire for more elective courses.

During their laboratory courses, students utilize computational software (e.g., Matlab), which aids them in developing procedural knowledge within the scientific discipline of mathematics.

The postgraduate program at the UA features a centralized process that enables students to submit complaints.

The role of academic advisor is proactive and carried out effectively. Additionally, program instructors are approachable and supportive, offering guidance both during and outside of class sessions.

The evaluation criteria and methods are communicated to students beforehand through the AegeanMoodle platform. In addition, regular announcements are made about examination procedures and course-related information.

The program regularly conducts teaching evaluations through student-completed questionnaires and stresses the importance of participating in these evaluations.

## II. Analysis

The AegeanMoodle platform provides students with flexible access to the educational material, supporting their learning and accommodating various learning paces within the PSP program. It also aids students in developing metacognitive skills, such as self-organization and self-directed learning. However, these metacognitive skills could be further enhanced by recording lectures and making them accessible on the platform.

Instructors encourage students to ask questions and share observations, which enhances learning engagement and fosters communication and critical thinking skills. The program's instructors also provide support outside the classroom, boosting students' confidence and contributing to their self-efficacy development. This opportunity for communication and support promotes academic progress and assists students in their growth.

Students actively engage in course evaluations by providing observations and suggestions for improvements. Their feedback, including comments, is analyzed to consider potential changes to the program. This approach integrates students' perspectives into both course evaluations and curriculum development, highlighting them as essential contributors to the learning process. Evaluation results are reviewed, and targeted proposals for improvement are developed, ensuring that feedback is effectively utilized to enhance teaching quality.

## III. Conclusions

The PSP's educational approach integrates various learning and assessment methods. A structured process ensures that students can express their concerns or objections, while academic advisors offer guidance. The current evaluation system facilitates continuous monitoring and improvement of the teaching process, aligning it with students' needs and feedback.

The PSP follows the principles of a student-centered environment based on mutual respect and collaboration, aiming to achieve its learning objectives.

**Panel Judgement**

*Please tick one of the following:*

| **Principle 3: Student-centred learning, teaching, and assessment** | |
|---|---|
| Fully compliant | **X** |
| Substantially compliant | |
| Partially compliant | |
| Non-compliant | |

**Panel Recommendations**

*Please provide your recommendations with regard to issues that need to be addressed, as appropriate.*

1. The PSP should consider recording course lectures and uploading them to the AegeanMoodle platform. This would enable students to access the material flexibly and enhance their learning according to their individual preferences and pace.
2. The PSP should enhance support and interaction between students and instructors via weekly sessions for addressing questions and clarifications.
3. In some instances, the number of group projects could be increased to enhance collaboration among students and cultivate teamwork skills.

## 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

*Please comment on the compliance with the Principle. Specifically: Please describe the findings related to the Principle, analyse, and conclude your judgement. Findings, analysis of judgement and conclusions should be developed below in three distinct parts.*

### I. Findings

The PSP Study Guide provides comprehensive information on the program's aims and objectives, offering a detailed curriculum breakdown, including ECTS points per subject and a course timetable. Course Outlines provide an overview of the topics covered in each course. The PSP Regulations for Studies and Project Work outline key aspects of the program, including application, admission, and registration procedures, assessment methods, progress monitoring, the role of the Study Advisor, the Thesis process, final degree grading, and available support infrastructure.

Students assess courses and faculty through anonymous electronic questionnaires at the end of each semester. MODIP compiles these evaluations to generate statistical insights for each instructor and course, helping refine the educational process and inform future curriculum planning.

The PSP Thesis engages students in current research topics, further strengthening the program's appeal and integration with the broader research community.

Full time students of the program have not taken advantage of opportunities offered by the Erasmus+ program.

The PSP graduation rate is low (15,63%) due to the fact that most of the PSP students are on a part-time basis.

### II. Analysis

The PSP regulations provide information on several aspects. The learning outcomes of the PSP are clearly presented. Students in the program should be able to attend research seminars offered by the Department of Mathematics

online and in-person. Furthermore, a stronger focus on mobility opportunities offered by the Erasmus+ program should be included in the program's objectives.

Based on the data provided by the program, the transition to initially a partially online and recently a fully online program has led to reduction in student dropout rates.

Based on discussions with current and past students, the lack of information about program alumni has been recognized as a barrier to building stronger connections and enhancing networking opportunities between graduates and current students.

**III. Conclusions**

According to the provided documentation, presentations of the faculty, student representation and selected administrators, the EAAP concluded that the PSP's policies and Study Guide are in accordance with the requirements set by HAHE.

The EEAP highlights the transition to a fully online program and anticipates that this shift will contribute positively to improving graduation rates within the designated time frame.

**Panel Judgement**

*Please tick one of the following:*

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

**Panel Recommendations**

*Please provide your recommendations with regard to issues that need to be addressed, as appropriate.*

1. Continuous improvement of graduation rates should remain a key focus of the program and the teaching staff.
2. Prioritizing the utilization of mobility opportunities through the Erasmus+ program should be a goal of the PSP.
3. The PSP students would benefit from additional information regarding career opportunities.
4. The PSP should connect current students with alumni to enhance networking

opportunities, foster mentorship relationships, and provide valuable career insights.

## 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

*Please comment on the compliance with the Principle. Specifically: Please describe the findings related to the Principle, analyse, and conclude your judgement. Findings, analysis of judgement and conclusions should be developed below in three distinct parts.*

**I. Findings**

Based on the provided documentation, during the 2024-25 academic year, the Department of Mathematics permanent teaching staff are 6 Full Professors, 6 Associate Professor, and 8 Assistant Professors. The faculty is supported in its teaching mission by 2 special teaching laboratory staff members, 2 special technical laboratory staff members, and 3 administrative staff members. The faculty has a gender distribution of 19 males and 1 female. The PSP faculty are from the UA Department of Mathematics.

Faculty members possess expertise across various mathematical topics aligned

with the program's curriculum. In addition to their teaching responsibilities within the PSP, they actively contribute to other teaching and research activities within the Department of Mathematics. The PSP faculty demonstrate strong scientific performance, as reflected in their publications, conference presentations, citations, and h-index, and they are highly engaged in supervising students at undergraduate, masters, and doctoral levels. While there are well-defined processes for assessing faculty's teaching performance, no formal mechanisms appear to be in place for evaluating or rewarding excellence in teaching and research. The PSP undergoes frequent revision and improvement based on student feedback from course evaluations, advisor roles, and student progress.

Interactions between the EEAP and selected current and former PSP students suggest a strong rapport between faculty and students, with effective mentorship and guidance for academic progression, professional opportunities, and career placement in fields covered by the program.

**II. Analysis**

These findings were reinforced by online meetings with teaching staff, current and former students, and external stakeholders. There is strong communication between faculty and students. The quality of the PSP teaching staff, the course offerings and the transition of the PSP to online have contributed to attracting a larger number of students to the program.

However, job placement and overall interactions between private-sector/companies/industry can be improved.

**III. Conclusions**

The PSP benefits from a high quality teaching staff with strong scientific credentials. Both faculty and students expressed strong support for the program. The program maintains a good balance between various theoretical and applied areas in mathematics and offers students research opportunities through course projects and the MS Thesis.

Based on the above findings, it is evident that the PSP actively supports scholarly efforts, promotes scientific advancements, and is dedicated to encouraging and empowering students to achieve excellence in their chosen societal paths.

**Panel Judgement**

*Please tick one of the following:*

**Principle 5: Teaching staff of postgraduate**

| study programmes | |
|---|---|
| Fully compliant | **X** |
| Substantially compliant | |
| Partially compliant | |
| Non-compliant | |

**Panel Recommendations**

*Please provide your recommendations with regard to issues that need to be addressed, as appropriate.*

1. The EEAP encourages the PSP faculty to introduce new courses that reflect emerging developments in various areas of mathematics, ensuring that the PSP remains fresh and attractive to a wide range of students.
2. The EAAP recommends that the Department of Mathematics explores ways to reward faculty members for excellence in teaching and research.

## 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

*Please comment on the compliance with the Principle. Specifically: Please describe the findings related to the Principle, analyse, and conclude your judgement. Findings, analysis of judgement and conclusions should be developed below in three distinct parts.*

**I. Findings**

The academic unit of the PSP provides access to modern learning approaches through distance education.

The PSP offers access to digital libraries, remote access (VPN), and sophisticated software and programming environments, such as Matlab, for mathematical computations, data analysis, simulations, and graphing design.

Individual interviews with students and alumni showed that the information provided by the PSP is very satisfactory.

The PSP has two permanent administrative staff members, which adequately meets its needs.

The PSP does not charge tuition fees, which provides financial relief to its students. This policy enhances the program's competitiveness.

## II. Analysis

The PSP technology resources and its qualified personnel contribute to a solid teaching and research environment.

The available services cater to a diverse array of student needs, ensuring a seamless and supportive experience throughout the program.

Students are well-informed and have easy access to effective services that meet their academic and personal needs.

The PSP is supported by skilled and specialized administrative staff who manage registrations, examinations, grades, certifications, and postgraduate theses. These services operate smoothly as the staff efficiently oversees all aspects related to student and infrastructure management. The level of administrative staffing is considered sufficient, ensuring the seamless operation of support services, and contributing to a well-organized learning environment.

## III. Conclusions

The PSP shows its commitment by allocating sufficient resources and means, organized for the long term, to support overall learning and academic activities, ensuring students receive the highest possible level of education. These resources include both tangible and intangible facilities, such as specialized libraries, access to electronic databases, IT and communication services, and support and counseling services.

When allocating resources, the needs of all students are considered (e.g., full-time and part-time students, working students, etc.), fostering a student-centered learning approach. Support activities and facilities are organized according to the institutional framework. Meanwhile, internal quality assurance addresses both the quantity and quality of available resources and ensures that students are informed about these services.

**Panel Judgement**

*Please tick one of the following:*

| **Principle 6: Learning resources and student support** | |
|---|---|
| Fully compliant | **X** |
| Substantially compliant | |
| Partially compliant | |
| Non-compliant | |

**Panel Recommendations**

*Please provide your recommendations with regard to issues that need to be addressed, as appropriate.*

None

## 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

*Please comment on the compliance with the Principle. Specifically: Please describe the findings related to the Principle, analyse, and conclude your judgement. Findings, analysis of judgement and conclusions should be developed below in three distinct parts.*

**I. Findings**

The academic unit has established procedures for collecting data related to the student body, teaching methods, and student progression.

The Alumni Office monitors graduate career paths and collects data on alumni employability through surveys. However, this process is not as systematic as it should be. Based on the information provided, the office is expected to operate more systematically soon, with the necessary formal structure in place.

Student satisfaction surveys are conducted at the end of each semester to gather

feedback on teaching methods, course content, and overall program quality. A system created by the UA facilitates the collection of the teaching evaluation data and the PSP determines the start and end dates for the survey. Students receive notifications via their institutional emails when each survey begins. Additionally, instructors inform students about this process during class sessions.

The satisfaction surveys are anonymous to ensure honest responses.

The information collected from student satisfaction surveys is analyzed by MODIP and shared with the teaching staff for review.

The academic unit routinely evaluates the availability and accessibility of resources, including equipment and IT infrastructure. Information on these resources is collected through internal audits and student feedback, ensuring that necessary improvements are identified and implemented.

The collected data is presented in graphical formats that highlight trends and facilitate immediate interpretation and comparison.

**II. Analysis**

Data from the PSP is collected systematically, and its analysis is presented through clear graphical representations. These visuals illustrate trends over time, making interpretations and comparisons easy. This approach assists the academic unit in making informed decisions that can enhance the program's effectiveness and resource management.

**III. Conclusions**

The academic unit uses various strategies to collect, analyze, and apply data to improve the effectiveness of program implementation.

**Panel Judgement**

*Please tick one of the following:*

| **Principle 7: Information management** | |
|---|---|
| Fully compliant | **X** |
| Substantially compliant | |
| Partially compliant | |
| Non-compliant | |

**Panel Recommendations**

*Please provide your recommendations with regard to issues that need to be addressed, as appropriate.*

1. The PSP could enhance its gathered statistics, including key performance indicators (KPIs) on the program's retention rate.

## 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

*Please comment on the compliance with the Principle. Specifically: Please describe the findings related to the Principle, analyse, and conclude your judgement. Findings, analysis of judgement and conclusions should be developed below in three distinct parts.*

**I. Findings**

The Department of Mathematics and the PSP website are available in Greek and English. The websites are user-friendly and easy to navigate. The PSP websites contain a short description of the PSP and its objectives, a table that lists the PSP courses with links for their outlines, as well as links to the exam schedule, the StudyGguide, and the courses offered under the Erasmus+ for the academic year 2024-25. The Greek version of the PSP website also includes links to the quality assurance policy, the PSP Thesis format, older Study Guides, the proposed PSP Thesis topics for Fall 2024, as well as links to the online application system Nautilus for all UA PSPs.

The Study Guide is only available in Greek.

The PSP faculty CVs are in Greek and English on the department website.

**II. Analysis**

The PSP websites do not contain information on the PSP learning outcomes, the KPIs, and information on employment perspectives for its graduates. The English version does not include the same information as its Greek counterpart, which hinders information from prospective non-Greek students. Although the English PSP website contains basic information about the program, several links point to documents in Greek.

**III. Conclusions**

The PSP does not fully satisfy Principle 8 due to essential missing information, as outlined above, and not having identical information on its website's Greek and English versions.

**Panel Judgement**

*Please tick one of the following:*

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

**Panel Recommendations**

*Please provide your recommendations with regard to issues that need to be addressed, as appropriate.*

1. The PSP should redesign its websites by including the same information on both the Greek and English versions of its website.

## 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

*Please comment on the compliance with the Principle. Specifically: Please describe the findings related to the Principle, analyse, and conclude your judgement. Findings, analysis of judgement and conclusions should be developed below in three distinct parts.*

**I. Findings**

The PSP self-assessment procedure takes place annually with the support of the MODIP. The quality assurance KPIs are set annually. The findings of the PSP self-assessment are shared with the Department of Mathematics faculty. The PSP is evaluated using students' and graduates' surveys. The EAAP found no information on surveys from external stakeholders.

**II. Analysis**

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

The PSP reports that in the academic year 2021-2022, 50% of its students participated in the course evaluations. This value is the same as the reported KPI target value, and is considered low. The student's evaluation rating averages are in the range of 4.70-4.92 (out of 5) for all survey questions. These student survey results show that the PSP students are satisfied with the PSP course objectives and the material covered.

**III. Conclusions**

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

**Panel Judgement**

*Please tick one of the following:*

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

**Panel Recommendations**

*Please provide your recommendations with regard to issues that need to be addressed, as appropriate.*

1. The PSP must develop satisfaction surveys for external stakeholders involved with the program.
2. The target value for KPI related to the number of students completing the evaluation surveys needs to be increased.
3. The PSP should have an Advisory Board of students, graduates, and external stakeholders

who will provide input for changes and improvements in the program.

## 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

*Please comment on the compliance with the Principle. Specifically: Please describe the findings related to the Principle, analyse, and conclude your judgement. Findings, analysis of judgement and conclusions should be developed below in three distinct parts.*

**I. Findings**

The PSP has not previously undergone an external evaluation for accreditation purposes. However, it provides a progress report on aspects of the 2013 Department of Mathematics external evaluation, which pertains to the PSP.

**II. Analysis**

The current evaluation is the PSP's first external accreditation review. Some recommendations from the department's external review also apply to the PSP. Since then, several changes have been implemented to the PSP for its improvement following the institution's reviews. The EEAP found that the PSP faculty and supporting staff were constructive 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, which are shared with the department faculty.

**III. Conclusions**

An external committee has not previously evaluated the PSP for accreditation purposes. However, the PSP has implemented several recommendations from the 2013 Department of Mathematics external evaluation. The EEAP found that the PSP is in full compliance with Principle 10.

### Panel Judgement

*Please tick one of the following:*

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

**Panel Recommendations**

*Please provide your recommendations with regard to issues that need to be addressed, as appropriate.*

None.

## PART C: CONCLUSIONS

### I. Features of Good Practice

*Please state aspects of good practice identified, with regard to the postgraduate study programme.*

1. The PSP's current students, graduates, external stakeholders, social partners, and teaching staff have positive experiences with the PSP.
2. The PSP is of highly quality and scientifically sound, offering opportunities for its graduates as doctoral students in the UA and elsewhere.
3. The PSP courses are taught online, allowing students to attend and participate remotely without the need to be physically present at UA.
4. There are no tuition or other fees for the PSP students, which lowers the education cost.
5. There is an excellent interaction between the PSP teaching staff and its students.

### II. Areas of Weakness

*Please state weak areas identified, with regard to the postgraduate study programme.*

1. The English version of the PSP website does not contain the same information as the Greek counterpart.
2. There are no satisfaction surveys for external stakeholders involved with the program.
3. The KPI target values related to the number of students completing the evaluation surveys and to the graduation rate are low.
4. The reporting of the data related to the PSP graduation rate needs to be improved.

5. There are no  PSP students participating in the Erasmus+ program.

## III. Recommendations for Follow-up Actions

*Please make any specific recommendations for development.*

1. The PSP should improve its KPIs target goals and reporting data, especially for reporting student graduation rate and the program's retention rate.
2. The target value for KPI related to the number of students completing the evaluation surveys needs to be increased.
3. The PSP should redesign its websites by including the same information on both the Greek and English versions of its website.
4. The PSP must develop satisfaction surveys for external stakeholders involved with the program.
5. The PSP should establish an Advisory Board of students, graduates, and external stakeholders who can provide input for changes and improvements related to the program.
6. The PSP is encouraged to explore ways to reward its faculty members for excellence in teaching and research.
7. The PSP is encouraged to prioritise the utilization of mobility opportunities through the Erasmus program.
8. The PSP is encouraged to introducing new courses that reflect emerging developments in various areas of mathematics, ensuring that it remains fresh and attractive to a wide range of students.
9. The PSP is encouraged to establish weekly recitation sessions to address courses' questions and provide clarifications.
10 .The PSP is encouraged to strengthen alumni tracking mechanisms thus, providing richer data on employability and career outcomes.

## IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are:

1,2,3,5,6,7,10

The Principles where substantial compliance has been achieved are:

4,8,9

The Principles where partial compliance has been achieved are:

.

The Principles where failure of compliance was identified are:

.

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

## The members of the External Evaluation & Accreditation Panel

**Name and Surname**

DIMAKIS NIKOLAOS (NICHOLAS) — Nicholas Dimakis

FRIDERIKOS VASILIS — Vasilis Friderikos

MICHAILIDIS GEORGE

ΓΚΑΓΚΑΣ ΒΑΣΙΛΕΙΟΣ