



**ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ**  
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**Εθνική Αρχή  
Ανώτατης Εκπαίδευσης**  
Hellenic Authority  
for Higher Education

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](mailto:secretariat@ethaae.gr) • [www.ethaae.gr](http://www.ethaae.gr)

# Accreditation Report

## for the New Postgraduate Study Programme of:

**Master of Science in Biological Technology: Research and Applications**

**Department: Biology**  
**Institution: University of Patras**  
**Date: 26 October 2024**



Με τη συγχρηματοδότηση  
της Ευρωπαϊκής Ένωσης



Πρόγραμμα  
Ανθρώπινο Δυναμικό και  
Κοινωνική Συνοχή



Report of the Panel appointed by the HAHE to undertake the review of  
the New Postgraduate Study Programme of **Biological Technology:**  
**Research and Applications** of the **University of Patras** for the purposes  
of granting accreditation.

## TABLE OF CONTENTS

<b>Part A: Background and Context of the Review .....</b>	<b>4</b>
I. The External Evaluation & Accreditation Panel .....	4
II. Review Procedure and Documentation .....	5
III. Postgraduate Study Programme Profile .....	7
<b>Part B: Compliance with the Principles.....</b>	<b>9</b>
Principle 1: Strategy, Quality Assurance Policy and Quality Goal Setting for the New Postgraduate Study Programmes .....	9
Principle 2: Design and Approval of New Postgraduate Study Programmes.....	13
Principle 3: Regulations for Student Admission, Progression, Recognition of Postgraduate Studies, and certification .....	18
Principle 4: Teaching Staff of New Postgraduate Study Programmes .....	22
Principle 5: Learning Resources and Student Support .....	28
Principle 6: Initial Internal and External Evaluation and Monitoring of New Postgraduate Study Programmes .....	32
<b>Part C: Conclusions .....</b>	<b>34</b>
I. Features of Good Practice.....	34
II. Areas of Weakness.....	34
III. Recommendations for Follow-up Actions.....	34
IV. Summary & Overall Assessment .....	36

## **PART A: BACKGROUND AND CONTEXT OF THE REVIEW**

### **I. The External Evaluation & Accreditation Panel**

The Panel responsible for the Accreditation Review of the new postgraduate study programme of **Biological Technology: Research and Applications** of the **University of Patras** comprised the following five (5) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

- 1. Prof. Emeritus Spyros G. Pavlostathis (Chair)**  
Georgia Institute of Technology, United States of America
- 2. Dr. Nicolas George Eliades**  
Frederick University, Cyprus
- 3. Prof. George Christophides**  
Imperial College London, United Kingdom
- 4. Dr. Rodios Gamvros**  
Hellenic Food Industry Federation, Greece
- 5. Mr. Panagiotis Filis**  
PhD Candidate, University of Ioannina, Greece

## II. Review Procedure and Documentation

In preparation for the review and assessment of the new PSP **Biological Technology: Research and Applications** of the **University of Patras**, the External Evaluation & Accreditation Panel (EEA Panel) reviewed a multitude of materials provided by the Hellenic Authority of Higher Education (HAHE), which included background information and guidance on the review and accreditation process, as well as detailed material and data related to the programme under evaluation, such as the programme accreditation proposal and associated appendices provided by the new PSP through the HAHE.

The programme review was conducted via teleconference, organized and coordinated by HAHE and the University of Patras. The schedule and agenda of the review were as stated below.

### Monday 21/10/2024:

Preliminary private meeting of the EEA Panel. Discussion of the programme under review; assignment of writing parts of the draft accreditation report to the members of the EEA Panel.

### Tuesday 22/10/2024:

- a) Welcome meeting and brief overview of the PSP with the Vice Rector and President of MODIP Prof. I. Venetis, the Head of the Department Prof. S. Dailianis, and the PSP Director Prof. E. Rosmaraki. Brief presentation of the Department history and accomplishments; presentation of the structure, quality assurance, and other futures of the PSP.
- b) Meeting with PSP teaching staff members, Profs. A. Dermon, G. Grammatikopoulos, G. Kallergi, P. Kornilios, A. Lianou, M. Margarity, I. Margiolaki, G. Petropoulou, Y. Vasilopoulos, and M. Klapa, Research Director (ITE): Discussion of teaching involvement, learning resources and other futures of the new PSP.
- c) On-line tour of facilities and discussion of facilities and learning resources with Secretary Ms. E. Mpouzamanaki, and PSP teaching staff members Mr. G. Passas, Ms. O. Pavlou, and Mr. S. Tsakas.
- d) Meeting and discussion with employers and PSP social partners: Prof. E. Athanassaki, Founder and Scientific Officer of ImmunoREC; Dr. F. Karavasili, Quality Assurance Specialist CBL S.A.; Dr. P. Politis, Principal Researcher, Biomedical Research Foundation, Academy of Athens; and Mr. R. Skountzos, Director BIOLAN S.A.
- e) Private debriefing meeting (EEA Panel members only): Discussion of the outcomes and findings of the PSP virtual visit; preparation of oral report.
- f) Closure meeting with the Vice Rector and President of MODIP, the Department Head and PSP Director, and MODIP Director, Ms. F. Papadatou: Informal, oral presentation of the EEA Panel PSP key findings and clarifications.

### Wednesday 23/10/2024 to Sunday 27/10/2024:

Draft report writing. EEA Panel virtual meetings. Review and finalization of draft report.

Throughout the review and evaluation process, the EEA Panel was in close communication with the Department and PSP administration, which were very accommodating in providing additional information requested by the EEA Panel. The EEA Panel found that the Department and the PSP administration, as well as the faculty, staff, and employers interviewed were eager and helpful in our discussions, providing valuable additional information.

### III. Postgraduate Study Programme Profile

The establishment of the new postgraduate study programme (PSP) “Biological Technology: Research and Applications” was approved by Senate of the University of Patras (meeting no. 224/26-10-2023) based on the provisions of Public Law 4957/2022 (Official Gazette 141/section A/21-7-2022) as well as other pertinent laws and regulations. The proposed new PSP evolved from the specialization "Biological Technology" of the PSP "Biological Sciences: Research and Applications" of the Department of Biology, which was last offered in the academic year 2022-2023. The new PSP is organized and will be offered by the Department of Biology of the University of Patras.

The goals of the new PSP are: a) to provide its graduates with specialized knowledge in cutting-edge areas included in the broader fields of Biological Technology; and b) to train and develop specialized and competent scientists aiming at their academic and professional development to pursue doctoral studies in related scientific areas, or to staff institutions and services of the private and public sector related to health, environment, public and private education, etc.

The programme has set at fifteen (15) the maximum number of admitted students per academic year. Admitted students are graduates primarily of biological sciences, as well as other natural sciences. The admission criteria and selection process are specified in the proposed PSP Internal Regulation posted on the PSP website (<http://btra.biology.upatras.gr/>). There are no tuition fees.

The PSP consists of three (3) academic semesters study resulting in level 7 Diploma of Postgraduate Studies. To graduate, the student must have successfully completed a total of 90 European Credit Transfer System (ECTS) credits (40 ECTS for coursework and 50 ECTS for the preparation and successful completion of the mandatory postgraduate thesis). Lectures are given exclusively in-person and lecture attendance is mandatory. One course is mandatory while students can choose five (5) courses from a list of thirteen (13) elective courses. The EEA Panel found that the number of courses offered cover new topics and technologies with particular emphasis on biological techniques and methods. Teaching staff in the PSP includes thirteen (13) core faculty of the Department of Biology along with three (3) other academic personnel and two (2) external instructors. Specialized technical staff and administrative staff assist the PSP.

The PSP prepares graduates with knowledge and research tools that will allow them to continue with doctoral studies as well as to staff private and public sector bodies and services related to health, education, nutrition, and environmental protection. There are strong links to the society, which is key priority of the PSP Biological Technology: Research and Applications, the Department of Biology, and the Institution.

The Department of Biology offers a PSP Applied Ecology-Management of Ecosystems and Biological Resources, participates in three inter-departmental postgraduate study programmes, and supports doctoral studies.

## PART B: COMPLIANCE WITH THE PRINCIPLES

### Principle 1: Strategy, Quality Assurance Policy and Quality Goal Setting for the New Postgraduate Study Programmes

INSTITUTIONS SHOULD INCLUDE IN THEIR STRATEGIC MANAGEMENT THE DEVELOPMENT, ORGANISATION, AND IMPLEMENTATION OF NEW POSTGRADUATE STUDY PROGRAMMES (PSP) IN SPECIFIC SCIENTIFIC FIELDS AFTER INVESTIGATING THEIR FEASIBILITY AND SUSTAINABILITY.

INSTITUTIONS SHOULD APPLY A QUALITY ASSURANCE POLICY FOR THE NEW POSTGRADUATE STUDY PROGRAMMES AS PART OF THEIR STRATEGIC MANAGEMENT.

THIS POLICY SHOULD EXPAND AND BE AIMED (WITH THE COLLABORATION OF EXTERNAL STAKEHOLDERS) AT THE PSP OF THE INSTITUTION AND THE ACADEMIC UNIT. THIS POLICY SHOULD BE PUBLISHED AND IMPLEMENTED BY ALL INTERESTED PARTIES.

*By decision/s of the Institutional Senate, the Institutions should adapt their strategy to allow for the provision of postgraduate study programmes, in addition to attending to the profile, vision, mission and strategic objectives of the Institution. In this strategy, the Institutions should anticipate the potential benefits, difficulties or risks from the implementation of new postgraduate study programmes and plan all the necessary actions to achieve their goals. The Institution's strategic choices should be documented through specific feasibility and sustainability studies, especially for new postgraduate study programmes.*

*In the case of PSP delivered by distance methods, the Institution prepares and applies an e-learning strategy. The Institution's e-learning strategy is integrated into its overall strategy and identifies educational goals while keeping up to the rapid technological changes and to the developments in pedagogical models. The Institution should include in its strategy the justification and feasibility as to why e-learning has been selected as the appropriate learning strategy for the particular programmes of study where it is applied.*

*In the context of e-learning, innovation strategies, the possibility of programme revision, the linking between learning and research (requiring knowledge of the latest innovations in order to select the most appropriate means to achieve the learning outcomes) should be taken into account.*

*The quality assurance policy of the academic unit for postgraduate study programmes should be in line with the Institution's strategy 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 postgraduate 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 continuous 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 and the availability 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 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 internal review and audit of the quality assurance system for the PSP through the cooperation of the Internal Evaluation Group (IEG) with the Institution's Quality Assurance Unit (QAU)*

## **Study Programme Compliance**

### **I. Findings**

The Institution has set a Strategic Development Plan for 2024-2027 based on a SWOT analysis. This strategy assigns to the University Quality Assurance Unit (QAU; MODIP) the responsibility for internal evaluation. On May 2023 the Institution's Senate defined the strategy and quality assurance to be applied to the Institution's PSP (<https://www.upatras.gr/upatras/diasfalisi-poiotitas/>). Consistent with the above-mentioned responsibilities, MODIP assessed the feasibility and sustainability of proposed PSP and issued an internal evaluation report (meeting no. 63/26-04-2024) ensuring that the PSP has developed an appropriate strategy for its operation.

There is a Quality Policy of the Department for the development and improvement of the PSP. This policy reconfirms the vision and targets of the Institution's quality policy and strategic development ([http://btra.biology.upatras.gr/btra\\_quality\\_assurance/](http://btra.biology.upatras.gr/btra_quality_assurance/)).

The PSP has planned to use an "in person" education mode promoting the "hands on" experience of the students. This education mode, together with the absence of tuition fees, makes the PSP under assessment attractive at least for graduates of the hosting Department. As mentioned by teaching staff members, 80% of the previous PSP graduates continued with PhD studies on several biology topics within the Biology Department of the Institution. The PSP is designed to benefit from all existing infrastructure, including research labs of department. The EEA Panel proposes that courses on Good Laboratory Practices and Lab Work Safety to be added in the current curriculum.

The maximum number of admitted students is set to fifteen (15) per academic year. A specific amount of funds is allocated from the annual budget. The Institution's administration is committed to maintain an equivalent funding level in the future.

## **II. Analysis**

Relative to the proposed organization of the new PSP, the EEA Panel wishes to comment on the following two specific procedures.

- a) The role of Academic Advisor has been replaced by a three members committee. To the Panel's opinion this is not in line with HAHE recommendations and makes it more difficult for students' access. Considering a comment made by a teaching staff member that direct contact of students-advisor did not work, the EEA Panel suggests that the PSP administration promotes the role of Academic Advisor through regular formal meetings.
- b) The complains handling procedure covers several areas of concern that may trigger complaints. However, it has come to the attention of the EEA Panel that there is no documentation relative to EU Directive 2019/1937 (National Law 4990/11-11-2022) "on the protection of persons who report breaches of Union law" (Whistleblower). It is suggested that the relevant University bodies include such provision.

Setting targets and monitoring them through relevant KPIs is a key factor for ensuring further development and continuous improvement in any organization. Priority needs to be given to targets that are primarily related to the organization's performance. Careful selection of targets and good understanding of their real meaning is absolutely necessary. The University MODIP has developed University-wide quality targets with specific Key Performance Indicators (KPIs) (<https://www.upatras.gr/wp-content/uploads/>). The PSP has set quality targets, but this is not supported by a relevant published procedure that will explain scope, timeframe, and use of targets setting. Out of eight four (84) already set targets at the Institution level, the PSP has selected six (6) rather soft targets, leaving out hard KPIs such as percentage of students successfully completing the programme, average students' performance, percentage of graduated students within set studies duration (3 semesters), number of students included in published scientific papers, etc. Targets selected to be measured need to be enriched with more PSP operation and performance indicators.

Given that the proposed PSP is tuition-free, raises concerns about its long-term sustainability.

## **III. Conclusions**

Regarding the above-mentioned improvements related to quality assurance and continuous improvement of the new PSP and proposed recommendations, the EEA Panel believes that the new PSP has a reasonable strategy for launching and development of the programme, has the necessary infrastructure and understands key requirements for a successful programme.

## Panel Judgement

<b>Principle 1: Strategy, Quality Assurance Policy and Quality Goal Setting for the New Postgraduate Study Programmes</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

## Panel Recommendations

**R1.1** Reinstate a dedicated academic advisor for each student, as per HAHE recommendations, to facilitate direct access and support of students.

**R1.2** Increase the number of targets (KPIs) set by the PSP as well as the expected degree of achievement.

## Principle 2: Design and Approval of New 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 NEW POSTGRADUATE STUDY PROGRAMMES. THE OBJECTIVES, THE SPECIFIC SCIENTIFIC SUBJECT AND THE STREAMS OR SPECIALISATIONS, THE EXPECTED LEARNING OUTCOMES AND THE EMPLOYMENT PROSPECTS ARE SET OUT IN THE PROGRAMME DESIGN. DURING THE IMPLEMENTATION OF THE NEW 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, the specialisations, the expected learning outcomes, the structure, the courses, the teaching and assessment modes, the teaching staff and the necessary resources 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. In particular, for each expected 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 for the 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).*

## Study Programme Compliance

### I. Findings

The PSP Biological Technology: Research & Applications is an innovative programme designed to meet important needs related to current challenges of biological science, by equipping postgraduate students with knowledge and research tools that will allow them to work in private and public sector bodies and services related to health, education, nutrition and environmental protection. The PSP is characterized by a strong link between teaching and research, thanks to the specialization of laboratories and equipment that have been previously established by the Department of Biology. The PSP aims to distinguish its graduates as executives in the labour market (i.e., companies, research, or applied laboratories, etc.) with excellent training and broad knowledge of the scientific field, in order to strengthen the scientific and professional careers in the private and/or public sectors. The proposed PSP follows the development strategy of the University of Patras and that of the Department of Biology, as well as the relevant regulatory framework and the existing official procedures.

The duration of the proposed PSP is one and a half years (three semesters certifying 30 ECTS per semester, totalling 90 ECTS). The structure, content, and organization of the curriculum are reasonable, focusing on a research direction, leading to a research-oriented PSP. The PSP is designed to emphasize the connection between teaching and research; this is reflected in the elaboration of postgraduate theses by students, which has a dominant role in the structure of the programme with 50 of the 90 total ECTS. The ECTS for the postgraduate thesis are distributed over the 2nd and 3rd semester. In the proposed PSP, only one relevant course in the 1st semester is mandatory, namely “Research Methodology” with 15 ECTS. This course aims to equip the students on: (i) endorsing principles of basic research methodologies in the field of Biological Technology; (ii) formulating valid scientific questions; (iii) developing the ability to design experiments; (iv) being able to use the appropriate methodology to design experiments; and (v) analysing and interpreting the results of their experiments. The remaining coursework 25 ECTS are credited to the students by successfully completing five out of the 13 elective courses (5 ECTS each; three courses during the 1st semester and two courses during the 2nd semester).

The courses and teaching methods are oriented towards deepening the knowledge and acquiring the corresponding skills to apply this knowledge on very specific topics of biological aspects, which are either indirectly related or independent to each other.

The curriculum design for the proposed PSP was carried out after rigorous discussions and debate among the teaching staff of the PSP. Although the PSP has considered the experience of external stakeholders from the labour market, no documentation about this procedure exists.

## **II. Analysis**

The PSP design was based on appropriate standards for postgraduate studies, as well as the relevant legislation and regulations of the University of Patras and the Department of Biology, a fact that resulted in the approval of the programme by both institutional bodies. The first impression from the curriculum is the high specialization on the relevant research area, which is necessary to provide high-quality knowledge.

Worthy of reference, and reflecting the curriculum of the proposed PSP, is the absence of a strong core of specific mandatory courses, namely courses that would offer in-depth expertise on specific biological directions to all students. The curriculum offers 13 elective courses, of which students are to select and study five (5) of them. According to this curriculum structure, students must possess high academic intuition and academic training to make sound and well-informed decisions about the selection and grouping of courses that will equip them with the specialized combination knowledge and academic resources they will need in the future. The PSP' curriculum focus on a single mandatory course alongside the postgraduate thesis gives the programme a strong research orientation. This structure supports students training by deepening their understanding on diverse research techniques and methods of data processing and analysis. However, the existing structure of the curriculum does not exhibit continuity between courses and thus lacks a clear scientific fingerprint in its scope, targets, and specialization. This observation could be a double-edged sword for the efficiency of the PSP, and for attracting potential students from other Institutions. For addressing this, the curriculum could be restructured in a way to serve both goals: completing the required specialization, whilst at the same time choosing from electives. This could be done by:

- (i) Rephrasing the distribution of the ECTS to the curriculum by establishing a higher number of mandatory core courses that will be characterised as the core courses of the proposed PSP (i.e., Research Methodology, Molecular Genetics and Applications, Methodology in Biomedical Research, Theory and Practice in Molecular and Biological Data Analysis, etc.); and at the same time reducing the number of elective courses. The elective courses should be more specialised, offering an in-depth educational orientation, to enhance specific research areas of biology.
- (ii) Adopting a mixt model for offered courses. The curriculum could consist of a low number of mandatory core courses in the 1st and 2nd semesters (as this is proposed by the PSP) and can offer clusters (bundles) of courses in each semester, with each cluster comprised of courses that have a similar scientific background. In each semester the students will need to choose a specific number of elective courses from each cluster.

In addition, the lack of appropriate terminology for the expected learning outcomes in the proposed PSP and its specific courses, is a drawback for achieving the Level 7 quality as defined by the European and National Qualifications Framework (EQF, NQF) and the Dublin Descriptors. The wording of the learning outcomes for the PSP as a whole and curriculum courses should be aligned with Level 7 of these frameworks. The Qualifications Framework of the European Higher Education Area states that the verbs “learn, understand, know” are typically used to characterize the learning results of the courses for the undergraduate programmes. It should be noted that, according to the Qualifications Framework of the European Higher Education Area, graduates of Level 7 of the 2nd Cycle of Studies, to which the PSP corresponds, should “gain highly specialised knowledge, some of which is cutting-edge knowledge in a field of work or study and which forms the basis for original thinking” and “gain specialized problem-solving skills required in research and/or innovation in order to develop new knowledge and processes”. Nevertheless, discussions with the PSP teaching

staff as part of the present evaluation revealed that the courses provide the desired specialization in the respective subjects, which is not currently reflected in the stated expected course learning outcomes.

The procedure of curriculum revision should be according to the PSP regulation, to engage stakeholders, external experts, students, and graduates from the PSP subjects. Consulting with the social and scientific groups that have the relevant market experience will shed light on the current needs and practical skills, essential for the market in real time. For this, the EEA Panel suggests the establishment of a formal External Advisory Board, with the aim to provide feedback on improvements that can be made, and on emerging needs that can be addressed by the PSP.

Based on the Quality Assurance Policy of the PSP, the students need to be actively involved in the evaluation of the quality and efficiency of teaching. The PSP committee should develop the flexibility for directly intervening in solving educational problems, deepening education, and training skills through the courses, while at the same time bringing changes to the admission criteria of students in the PSP (i.e., prerequisite skills and/or courses background from previously earned degrees).

The Study Guide provides the basic information that students should have at the start of their studies. However, in all course descriptions, the same general paragraph describes the assessment process for students and the general competencies to be acquired in each course. A presentation of the exact characteristics of each course would be expected instead, for specifying the exact type of assessment process for students (e.g., oral or written exam, multiple choice test, questions requiring extended responses, scientific presentation on specific topics or elaboration of projects, certain types of practical exercises, etc.), together with the general competencies to be acquired in each course. Also, the Study Guide should provide all necessary information about the studies and activities in the PSP (e.g., research seminars, mobility, fieldwork, participation of graduate students in international conferences, interacting with other research groups, exploring emerging opportunities inside and outside academia) as these are described in the “Proposal for Academic Certification of the New Postgraduate Study Programme”.

### **III. Conclusions**

The PSP has a strong orientation on research and on providing high hands-on training on techniques applied in different biology laboratories. However, the EEA Panel believes that the PSP can be improved by adopting the suggestions discussed above and presented below so that its implementation becomes even more effective.

## Panel Judgement

Principle 2: Design and Approval of New Postgraduate Study Programmes	
Fully compliant	
Substantially compliant	
Partially compliant	<b>X</b>
Non-compliant	

## Panel Recommendations

**R2.1** Strongly suggested to rephrase and/or reword the PSP's expected learning outcomes, as well as the expected learning outcomes and syllabi for all courses to emphasize that the PSP is offered at the postgraduate level (Level 7 according to the EQF & NQF).

**R2.2** Restructure the curriculum to enhance integration among courses and for granting a specific, focused, and distinctive identity to the PSP.

**R2.3** Enrich the Study Guide with more details about the expected learning outcomes of the PSP and its courses, including details on the evaluation mode of students for each course.

**R2.4** Consider establishing a formal External Advisory Board, comprised of stakeholders (e.g., industry representatives, labour market employees, etc.) and international academics, as well as alumni and students of the PSP, which would offer valuable advice for future programme directions and reassessment.

### **Principle 3: Regulations for 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).**

*The Institution should develop and publish the internal regulations prescribed by law which, among other things, should regulate all issues of postgraduate studies from the beginning to the end of the studies.*

*Indicatively:*

- *The students' 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*

*In case that the PSP is offered through distance learning methods, the Institution should have in place a regulation for e-learning, including in particular the following issues:*

- *Services of the Institution to support e-learning*
- *Methodology for the development and implementation of courses*
- *Ways of providing teaching and variety of teaching and assessment modes*
- *General standard of course structure*
- *Student support system*
- *Support of faculty/teachers with mandatory e-learning training for new staff members*
- *Technological infrastructures made available by the Institution*
- *Student identity confirmation system (student identity check, assignment and exam writing process, security and certification issues).*
- ❖ *The Institution should establish rules for the provision of appropriate access and for the assurance of the participation of students affected by disability, illness, and other special circumstances.*
- ❖ *Ethical issues, such as those concerning data protection, intellectual property rights and rules for protection against fraud are governed by the e-learning regulation.*

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

### **Study Programme Compliance**

#### **I. Findings**

The PSP Biological Technology: Research & Applications is hosted under the Department of Biology of the University of Patras, and hence the PSP has adopted the general regulations of the University policy (e.g., admissions, progression, recognitions, certification, scholarships, etc.). The PSP aims to enrol up to 15 candidates per academic year, a number deemed sufficient to ensure the programme's viability, the efficiency of academic teaching and the interactive character of the teaching procedures. Eligible applicants include graduates from Greek or foreign Universities with bachelor's degrees (level 6) from related areas of biological and natural sciences.

The minimum duration of studies for completing the PSP is three (3) academic semesters, including the time for postgraduate thesis elaboration. However, part-time study options are available for working students or those with serious personal obstacles, and studies can be suspended for force majeure reasons. The students must attend lectures, conduct laboratory work, and undergo evaluation at the end of each semester. For the implementation of postgraduate theses, the PSP sets specific quality requirements, together with a Code of Research Ethics for the PSP, both of which are given to students. The PSP diploma (and Diploma Supplement) qualifies graduates for employment in the private or public sectors (e.g., research institutes and private companies), as well as for further study toward a Ph.D. and a subsequent academic career.

The selection and admission criteria for postgraduate students are described in detail, as is the necessary supporting documentation. Admission to the programme is determined by a well-defined selection procedure, comprising of an evaluation of the applicants' undergraduate academic performance, previous academic study (cognitive background), publication in journals and/or scientific conferences, undergraduate thesis and an interview conducted by the PSP's Coordinating Committee. The supporting submitted documents provide a detailed description of these procedures, including details on the rights and responsibilities of students, as well as ways to track their progress toward postgraduate study completion. The mode of operation and all relevant procedures concerning the PSP are presented in the submitted documents and in the PSP's website (<http://btra.biology.upatras.gr/>). The Study Guide summarizes the general information about the PSP. The PSP equips postgraduate students with tools and procedures which aim to provide quick, efficient and reliable instructions on matters of support and solving common problems, as well as on searching for information about the operation of the University of Patras. Also, the PSP supports the use of the learning management system.

The PSP does not include external internships; however, it enables student mobility through the Erasmus+ programme, providing the opportunity for short-term (2-3 months) student internship in laboratories and private companies relevant to the programme's activities.

## **II. Analysis**

The proposed PSP aims to cover a vital need for postgraduates with training in cutting-edge areas of the Biological Sciences that have a direct interest in the development of Biological Technology in specialized areas of research and applications. The PSP focuses on

strengthening knowledge on biological sciences by providing students with the tools and skills to become executives with superior training and extensive scientific understanding. More specifically, the PSP aims towards a hands-on specialisation of its students on biological techniques and on the way in which these are implemented in research and applied science on biological aspects. In addition, an advantage of this PSP is the short duration (3 semesters) and the absence of tuition fees. These observations were also highlighted by the stakeholders (employers and social partners) during the meeting with the EEA Panel members. The stakeholders emphasized the demand for qualified graduates, which is an aim of the PSP, and especially the need to equip postgraduates with “hands-on” knowledge, together with skills and capabilities on dealing with techniques and methods that can be applied, in a combined way, toward problem solving in biological science. Stakeholders were supportive of the programme and of the Department of Biology faculty members who will implement it. All stakeholders maintain long-standing working relationships with the Department of Biology faculty members, and stakeholders have expressed their appreciation for this ongoing collaboration.

Course/instructor evaluations by the students are conducted at the end of each semester following the Institution's quality assurance system. Students' performance evaluation in courses is conducted through various assignments and final examinations in which they must participate.

The PSP currently lacks Academic Advisor, and its role has been replaced by a three-member Student Affairs Committee. The availability of this committee, as well as the committee's role in supporting students during their studies, are described in detail in the Institution Operation Regulation. However, in the new PSP Academic Advisors would be of significant importance, since the programme has a high number of elective courses and is heterogeneous in academic teaching subjects.

The Institution established rules and facilities for providing appropriate access and for ensuring participation of students affected by disability, illness, and other special circumstances. The PSP's website and the Study Guide (distributed annually to students) provides all the information about the curriculum and the academic/learning available services (e.g., my.upatras.gr, e-secretary, e-library, e-class, academic e-mail address, etc.).

The language of instruction is Greek; however, the students have the opportunity to write their postgraduate thesis in Greek or English. The option of writing the thesis in English caters primarily to potential international students, as well as for possible direct results publication in international scientific journals.

### **III. Conclusions**

Although the PSP has not yet begun accepting students, the Department of Biology has developed a research-oriented postgraduate programme, that would equip graduates with skills and knowledge for further academic studies and/or for employment in research and laboratory positions in the private and public sectors. The EEA Panel deems the duration of

the PSP, which spans three academic semesters (1.5 academic years), satisfactory for degree completion. The specific mandatory courses and laboratories, significantly enhance student training; the quality of these resources is considered satisfactory. However, the high number of elective courses, is potentially problematic, since choosing between these elective courses would require high academic maturity and scientifically sound selection on behalf of students.

### Panel Judgement

<b>Principle 3: Regulations for Student Admission, Progression, Recognition of Postgraduate Studies, and certification</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

### Panel Recommendations

**R3.1** Re-establish the role of Academic Advisor and ensure that students fully understand how to utilize such a valuable resource.

**R3.2** The PSP must develop a single document including information on all aspects and phases of studies (e.g., curriculum, courses syllabus, student regulations, quality requirements for the implementation of the PSP thesis, recognition, and certification, etc.), which would comprise the Study Guide. The Study Guide would act as a clear mode of conduct between the PSP and the students.

**R3.3** The outlines for all courses should be available in the Study Guide and in the PSP's website, including a detailed description of learning outcomes, general competences, syllabus, and students' performance evaluation. This information must be specific for each course and should clearly present the anticipated student workload according to the European credit transfer and accumulation system for Level 7 and the Framework for Qualifications of the European Higher Education Area (EHEA).

**R3.4** The PSP would greatly benefit from implementing a student internship initiative through the Erasmus+ programme or a local programme. Such an internship programme would provide mutual benefits for students and the labour market, including academia.

## Principle 4: Teaching Staff of New 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 and scientific competence of the teaching staff at the PSP, the appropriate staff-student ratio, the proper staff categories, the appropriate subject areas, the fair and objective recruitment process, the high research performance, the training, 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.*

### Study Programme Compliance

#### I. Findings

**PSP Staff Recruitment:** The Department of Biology, where this PSP will be held, fully complies with the recruitment and promotion rules established by the University of Patras and other academic Institutions in the country. Recruitment calls are based on academic needs and are advertised on the Department's website and the APELLA platform.

**PSP Staff Composition:** The current teaching staff consists of 18 members: 13 faculty from the Department of Biology (including 6 Assistant Professors, 4 Associate Professors, and 3 Professors), 1 Professor Emeritus, 2 retired Professors, and 2 affiliated researchers from research Institutes. This composition results in a student-to-staff ratio of approximately 1:1 for each entry year, with a maximum student intake of 15. The staff's areas of expertise align well with the courses they will teach in the PSP. In the proposed PSP, all lecturers and instructors, except for the two affiliated researchers, are either current faculty or have affiliations with the Department as emeritus or retired members. The Department also aims to create an appealing academic environment for international scientists by inviting recent PhD graduates and postdoctoral fellows to present at its annual Scientific Symposium and seminar series; however, their further involvement in the PSP is not clear.

**Staff Teaching Workload:** In the PSP, instructors have a teaching workload of 1.5 to 3 hours per week, totalling between 19.5 and 39 hours per year. This time is dedicated solely to course instruction and excludes lab work, seminars, exams, student interactions, and thesis supervision. Responsibilities are defined in the Programme Regulations and comply with institutional guidelines. Current faculty members have a total teaching load ranging from approximately 90 to 180 hours per year, depending on their level of seniority and other commitments, including research.

**Staff Teaching Performance:** The University has established a Quality Assurance roadmap, approved by the Senate in 2016, for evaluating teaching performance. The Department's OMEA submits courses for evaluation each semester. Online student course/instructor evaluations take place between the 8th and 10th weeks of each semester, allowing instructors to make adjustments based on feedback. PSP directors can request evaluations annually to aid in programme improvements. The OMEA submits student evaluation results to the 3-Member Advisory Committee and the Electoral Body during faculty promotions, renewals, or tenure decisions.

**Staff Professional Development:** Faculty members are encouraged to participate in programmes offered by the Teaching and Learning Support Centre (KEDIMA; <https://ctl.upatras.gr/>), established in 2016, which aims to enhance teaching quality. KEDIMA provides tailored programmes and integrates quality assurance processes. However, there is no documentation indicating whether all staff have participated in these programmes.

**Engagement in Educational Activities:** The Department actively promotes staff participation in educational seminars, training sessions, and workshops. It collaborates with various departments and institutions to support common research interests. Faculty mobility is facilitated through approved educational leaves for conferences or research activities.

**Award for Excellence in Teaching:** Since 2021, the University has introduced the Award for Excellence in Teaching to emphasize its commitment to outstanding teaching and to recognize faculty who demonstrate exceptional skill and dedication. Recipients are distinguished by their teaching abilities, academic integrity, and contributions to fostering critical thinking among students.

**Research Achievements:** The University has developed the "Alexandria" application to automatically gather data on faculty publications and citations. Two tables are provided: one from Scopus and one from Google Scholar, both presenting similar metrics, including publications, citations, and h, i10, and m indexes for all past and last 5 years, as well as for the years 2020, 2021, and 2022. As is common with these metrics, Google Scholar tends to inflate

the numbers. The data shows variability among faculty members, with some publishing frequently and receiving many citations, while others have disproportionately few publications and citations, especially in the past five years. Based on these metrics, the Department established the "Excellence in Publication Award" in 2021 to recognize outstanding research, providing financial support for one publication per faculty member annually in high-impact journals.

**Research Funding:** Some academic staff members have secured substantial external funding, which can facilitate student training in their laboratories. However, this information is not systematically documented in the provided materials or on staff resumes available on the Department's website. From discussions during the evaluation, the level of external funding is heterogeneous among staff, with some faculty members attracting significant research funding while others do not.

## II. Analysis

The proposed PSP is strategically designed to leverage the expertise of current faculty members within the Department of Biology. Each instructor is tasked with delivering elective courses that align closely with their specialization, thereby effectively integrating the staff's research backgrounds into the PSP's curriculum. This alignment enables students to benefit from a tailored syllabus, resembling a master's by Research, which highlights the Department's strengths in various areas of technologies in biological research. However, despite this positive integration, the overall structure of the PSP lacks a clear and coherent vision. It appears to prioritize assembling existing faculty expertise, without establishing a strategic plan for future growth or recruitment. As a result, it is challenging to ascertain how future appointments of lecturers and instructors will be structured. The current setup resembles a reactive model that accommodates available staff rather than a proactive academic programme designed to foster innovation and attract diverse teaching talent.

Most faculty members bring extensive teaching experience to the programme, having previously trained and graduated both PSP and PhD students. This wealth of experience is a significant asset for the PSP, ensuring that students receive high-quality instruction that is informed by the latest research. Moreover, the positive relationships cultivated between junior and senior staff foster a supportive academic environment that is crucial for maintaining the programme's quality and continuity. However, the PSP must also consider strategies for attracting lecturers and instructors from other Departments, as well as international experts, to enrich the programme's offerings and perspectives.

In terms of research output, many faculty members have strong publication records in reputable international journals, which enhances their credibility as educators and contributes to the academic rigour of the programme. The presence of joint publications, some of which include contributions from students, underscores a collaborative research culture within the Department. However, there are concerns regarding the performance of

certain key faculty members, especially in the past five years, as their publication rates vary significantly. This discrepancy could potentially impact the programme's reputation and its ability to attract students who are eager to engage with cutting-edge research.

An analysis of research funding reveals a mixed landscape within the Department. While some faculty members appear to have successfully secured substantial external funding that facilitates advanced student training in their laboratories, others have not attracted significant resources. This funding diversity in conjunction with the tuition-free PSP raises questions about the capacity of certain laboratories to support advanced research and provide opportunities for student placements for diploma theses. Consequently, only some faculty members can effectively attract students into their laboratories, leading to a scenario where those without substantial funding may end up having mostly teaching responsibilities instead of engaging in research supervision. To address this issue, the Department and programme may need to explore strategies that enhance faculty members' grantsmanship skills, enabling them to secure external funding that is essential for facilitating student involvement in state-of-the-art research.

Furthermore, improved documentation regarding the funding status of each laboratory is necessary. This information should be made accessible to students via the Department's website, allowing them to make informed choices about potential research opportunities. Transparent funding documentation will not only clarify available resources but also promote a better understanding of the research landscape within the Department, ultimately benefiting both faculty and students.

### **III. Conclusions**

The findings and analysis of the proposed PSP reveal both strengths and areas for improvement that are critical to the programme's success and sustainability.

Firstly, the Department of Biology has established a solid foundation for staff recruitment that adheres to the guidelines set by the University of Patras. The current teaching staff, composed of a diverse group of faculty members, facilitates a favourable student-to-staff ratio, and ensures that the curriculum is aligned with their areas of expertise. However, while this alignment is advantageous, the programme's overall structure lacks a clear and coherent vision for future growth. Such vision is not only important for the identity of the programme but will also allow a more proactive recruitment strategy, including from other departments and international collaborators, to enhance the academic environment and broaden the curriculum offerings.

Secondly, the extensive teaching experience of faculty members is a significant asset for the PSP, contributing to high-quality instruction. The collaborative relationships between junior and senior staff further enrich the academic environment, which is crucial for maintaining programme quality. Nonetheless, the programme must proactively cultivate opportunities for external engagement and collaboration to enhance its appeal and educational breadth.

The analysis of research output indicates a promising but uneven landscape. Many faculty members have demonstrated strong publication records, which bolster their credibility and the programme's academic rigor. However, disparities in publication rates among faculty raise concerns about the programme's reputation and its ability to attract motivated students interested in cutting-edge research as implied in the PSP's title. Addressing these inconsistencies is vital for fostering a culture of excellence and ensuring that all faculty members are supported in their research endeavours.

Furthermore, the variability in research funding within the Department presents both challenges and opportunities. While some faculty appear to have secured substantial external funding to support student training, others lack access to such resources. This disparity can limit research opportunities for students and may lead to an overreliance on teaching responsibilities for certain faculty members. To mitigate this issue, the Department should consider implementing targeted grantsmanship training for faculty to enhance their ability to secure external funding, thereby enriching the research opportunities available to students.

### Panel Judgement

<b>Principle 4: Teaching Staff of New Postgraduate Study Programmes</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

### Panel Recommendations

**R4.1 Clear and coherent PSP vision:** Develop a clear and coherent vision for the PSP and an associated structure, which emphasize on student learning objectives rather than faculty integration. This will also help the Department to design future recruitment and PSP growth, enriching the curriculum and fostering innovation.

**R4.2 Enhancing research and publication output:** Establish mentorship programmes that connect publication prolific with less experienced faculty to foster collaborative projects and improve publication rates. Encourage faculty to engage in joint research initiatives and provide resources to enable these.

**R4.3 Grantsmanship training and funding transparency:** Implement comprehensive grantsmanship training programmes for faculty to enhance their skills and increase their success rates in securing external funding. Additionally, improve the documentation and

visibility of research funding statuses for all faculty on the Department's and PSP's website, providing students with transparent information regarding available research opportunities and faculty resources. This will empower students to make informed choices and encourage faculty collaboration based on shared funding interests.

## Principle 5: Learning Resources and Student Support

**INSTITUTIONS SHOULD HAVE ADEQUATE FUNDING TO COVER THE TEACHING AND LEARNING NEEDS OF THE POSTGRADUATE STUDY PROGRAMMES. THEY SHOULD -ON THE ONE HAND- PROVIDE SATISFACTORY INFRASTRUCTURE AND SERVICES FOR LEARNING 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, 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 and foreign students, students with disabilities), in addition to the shift towards student-centered 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.*

### Study Programme Compliance

#### I. Findings

The Biology Department, which shares a building with the Mathematics Department, has significant scientific infrastructure. This includes a computer centre, specialized centres (the Centre for Electron Microscopy, the Environmental Laboratory, the Animal and Botanical Museum, as well as the Botanical and Experimental Garden), lecture halls, libraries, seminar room, teaching laboratories and research laboratories. Additionally, students benefit from resources like study spaces, access to academic databases, anti-plagiarism tools, and specialized software through the “My Upatras” platform and other digital services. The programme also promotes mobility through the Erasmus+ programme, facilitating internships abroad.

Support services are in place for physical, psychological, medical, and academic needs, with specialized support for students facing personal or financial difficulties. Students are provided with institutional email accounts, online platforms for course registration and progress tracking, and access to digital learning tools like Open e-class, Zoom, and Microsoft Teams.

To facilitate access to resources and services, the University has implemented the “My Upatras” platform. This digital tool provides essential information, FAQs, and guidance on

university-related matters, focusing specifically on student needs. New students are introduced to the programme through a welcome event at the start of the academic year, during which they are familiarized with the Department of Biology, the structure of the programme, and the academic expectations.

Student progress is monitored primarily through the Student Affairs Committee, which consists of three faculty members and offers personalized academic support throughout the duration of the programme. This committee aims to guide students in achieving academic success by considering their skills and interests within the educational and research framework. Students are regularly informed about programme updates, deadlines, and academic matters by the programme's Secretariat and teaching staff, ensuring consistent communication.

The programme is supported by a core teaching staff of 13 faculty members, along with other academic personnel and external instructors, who are qualified and have expertise relevant to the programme's subjects. These staff members are responsible for the teaching curriculum and the supervision Postgraduate Theses. Additional collaborations with external research scientists further enhance the educational offerings. The administrative staff consists of three members, who handle the administrative operations and IT support.

This is a tuition-free programme. Financial sustainability is based on the research funding of the faculty members. In the past the programme also received funding through the University's Special Account for Research Funds (EAKE) to support activities related to the educational process.

## **II. Analysis**

The PSP demonstrates a commitment to providing a comprehensive and well-supported academic environment. The physical resources, including laboratories, classrooms, and scientific equipment, are sufficient to meet educational needs, while the digital infrastructure complements in-person training. The programme's connection to research, evidenced by the integration of faculty research interests and academic courses, enhances the learning experience, and supports a research-driven academic culture.

The staff involved in the programme is highly qualified, contributing to the programme's ability to meet its educational objectives. Administrative support is sufficient to handle the programme's needs, ensuring a smooth operation.

The availability of digital resources, from anti-plagiarism tools to comprehensive databases, supports the academic integrity and research capabilities of students. Additionally, the Erasmus+ mobility programme provides valuable international exposure, broadening the academic and professional perspectives of participating students.

Support services, both academic and non-academic, cater to a wide range of student needs. These services ensure that students, including those from vulnerable groups, have access to necessary resources, maintaining an inclusive and accessible academic environment. The

financial sustainability of the programme relies largely on research activity and external funding, as there are no tuition fees.

### III. Conclusions

The PSP “Biological Technology: Research and Applications” successfully maintains a supportive and academically rigorous environment. The combination of adequate physical facilities, a qualified teaching staff, and comprehensive digital tools fosters an effective educational setting. The programme’s infrastructure and support systems are well-aligned with its academic objectives, and there is a strong emphasis on integrating research with teaching.

Efforts to address any deficiencies in resources show a proactive approach to maintaining high standards, while collaborations with external research bodies provide additional value. The availability of digital learning platforms and a well-organized administrative structure ensure students are well-supported throughout their studies. Financial support through research activities and external funding enables the programme to maintain quality without relying on tuition fees.

Overall, the programme’s ability to adapt, utilize digital tools, and provide diverse support services reflects a commitment to excellence in postgraduate education. The strategic focus on continual improvement and resource enhancement aligns with the broader goals of the University of Patras, ensuring that the PSP remains a strong option for students in the field of Biological Technology.

### Panel Judgement

Principle 5: Learning Resources and Student Support	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

**R5.1** Consider providing an inventory of specific equipment and research facilities. A detailed equipment list is indicative of the research methodologies that are being applied and can help students assess how well the programme aligns with their research interests and needs, as well as it may also foster more informed decision-making during the application process. Furthermore, such transparency could attract prospective students by showcasing the programme’s commitment to providing a robust research environment.

**R5.2** Conduct a seminar on laboratory safety and good laboratory practices before students initiate their studies in the laboratories. Such a seminar would be invaluable in ensuring that students are well-informed about the necessary safety protocols, best practices, and emergency procedures associated with working in a laboratory environment. This proactive approach would not only enhance the safety of students but also foster a culture of responsibility and awareness in the use of research facilities.

## **Principle 6: Initial Internal and External Evaluation and Monitoring of New Postgraduate Study Programmes**

**INSTITUTIONS AND ACADEMIC UNITS SHOULD HAVE IN PLACE AN INTERNAL QUALITY ASSURANCE SYSTEM, FOR THE AUDIT, INTERNAL AND EXTERNAL EVALUATION OF THE NEW POSTGRADUATE PROGRAMMES, THUS ENSURING COMPLIANCE WITH THE PRINCIPLES OF THE PRESENT STANDARDS. ANY ACTIONS TAKEN IN THE ABOVE CONTEXT SHOULD BE COMMUNICATED TO ALL PARTIES CONCERNED.**

*The internal evaluation of the new PSP includes the assessment of the accreditation proposal, as well as the documentation in accordance with the Principles of the present Standards and the quality procedures of the Institution's Internal Quality Assurance System (IQAS). The internal evaluation of new postgraduate study programmes also aims at maintaining the level of educational provision and creating a supportive and effective learning environment for students. The Institution, through its Quality Assurance Unit (QAU) and the corresponding academic units, organise and support the external evaluation procedures of the new PSP, according to the specific guidelines and directions provided by HAHE.*

*The above comprise the assessment of:*

- *the objectives, content, and structure of the curriculum, the knowledge offered and the level of science and technology in the given discipline, thus ensuring that the PSP is up to date, according to the relevant documentation listed in the decisions of the pertinent bodies*
- *the entailed students' workload for the progression and completion of postgraduate studies*
- *the satisfaction of the students' expectations and needs in relation to the programme*
- *the learning environment, support services, and their fitness for purpose for the PSP in question*

*Postgraduate study programmes are designed and established in accordance with the provisions of the Institution's internal regulations, involving students and other stakeholders.*

### **Study Programme Compliance**

#### **I. Findings**

The establishment of the PMS "Biological Technology: Research & Applications" was decided by the Department Faculty Assembly (meeting no. 2/29-09-2023) and its decision was then submitted with the necessary supporting documents to the University Senate. Upon the Senate decision to establish the new PSP (meeting no. 224/26-10-2023), the University Quality Assurance Unit (QAU; MODIP) reviewed all documents and compiled an internal evaluation report in accordance with the procedure of the Internal Quality Assurance System of the University of Patras (meeting no. 63/26-04-2024), ensuring that the PSP has developed an appropriate strategy for its organization and operation.

The PSP self-assessment procedure will take place annually organized by the Department Internal Evaluation Unit (IEU; OMEA) with the support of the University MODIP. The findings of the PSP self-assessment will be shared within the academic unit.

There has not been an external evaluation by a Panel of experts as this is a new PSP.

## II. Analysis

The PSP will collect data and use to improve the programme. The evaluation of the graduates' surveys will serve as an indirect assessment of the PSP. Although the experience of external stakeholders from the labour market and academia was considered for PSP design, no documentation about this procedure exists. In addition, the EEA Panel found no information on surveys from external stakeholders. The lack of satisfaction surveys from external stakeholders hampers the programme assessment. Students, graduates, and other stakeholders do not appear to have been directly involved in the decision-making processes for the PSP curriculum design.

## III. Conclusions

The PSP will be internally assessed annually through student surveys and other well-established Department and Institution procedures and practices ensuring quality assurance and the continuous improvement of the PSP. Systematic and documented external feedback from stakeholders and graduates should also be put in place and documented. The Department is fully aware of the specific guidelines and directions provided by HAHE regarding the external evaluation process.

### Panel Judgement

<b>Principle 6: Initial Internal and External Evaluation and Monitoring of New Postgraduate Study Programmes</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

**R6.1** The PSP should develop a mechanism for feedback from its external stakeholders, the participation of its graduates in surveys, and the engagement of students, graduates, and external stakeholders for its continuous improvement.

## **PART C: CONCLUSIONS**

### **I. Features of Good Practice**

- The PSP has the necessary procedures for monitoring quality assurance and aligns with the strategic objectives of the Department and the University.
- Infrastructure and facilities are adequate for the successful operation of the PSP.
- Faculty and staff are knowledgeable, enthusiastic, and dedicated to the PSP's mission.
- The PSP and the Department of Biology maintain a network of potential employers and stakeholders.
- The focus on hands-on, advanced training in state-of-the-art biological technologies equips students with practical skills directly applicable to both academic research and industry at national and international levels.

### **II. Areas of Weakness**

- The coursework structure with only one mandatory and numerous elective courses, does not establish a distinct, focused identity for the PSP.
- The terminology used in the PSP and course learning outcomes does not align with Level 7 postgraduate standards, which require advanced, specialised competencies.
- Replacing dedicated academic advisors with a committee reduces opportunities for personalised mentorship and guidance, crucial for navigating the complexities of a research-oriented programme with numerous electives.
- The limited number of specific and clearly defined KPIs restricts the PSP's ability to measure its effectiveness and progress.
- Disparities in publication and funding rates among faculty may impact the PSP's operations and threaten its long-term sustainability.
- There is no formal, organized connection between stakeholders, alumni, and the PSP.

### **III. Recommendations for Follow-up Actions**

- Consider reorganizing the curriculum to better define and enhance the PSP's focus and recognition.
- Revise learning outcomes and syllabi to clarify that the PSP is at Level 7 of postgraduate studies.
- Increase and refine KPIs to set measurable goals, track outcomes, and identify areas for improvement, strengthening the overall quality and impact of the PSP.
- Consider implementing mentorship and grantsmanship training programmes for faculty to boost research funding, outputs, and collaborations.
- Encourage mobility of PSP students, faculty, and staff.

- Update the PSP's website to include a comprehensive Study Guide, as well as teaching and research staff CVs with indicators of funding and publications.
- Consider forming an Advisory Board comprised of external faculty, graduates, and social and industrial partners to support continuous PSP review, curriculum development, and programme enhancement.

#### IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are: **5,6**

The Principles where substantial compliance has been achieved are: **1,3,4**

The Principles where partial compliance has been achieved are: **2**

The Principles where failure of compliance was identified are: **None**

Overall Judgement	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

## **The members of the External Evaluation & Accreditation Panel**

### **Name and Surname**

- 1. Prof. Emeritus Spyros G. Pavlostathis (Chair)**
- 2. Dr. Nicolas George Eliades**
- 3. Prof. George Christophides**
- 4. Dr. Rodios Gamvros**
- 5. Mr. Panagiotis Filis**