



**ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ**  
HELLENIC REPUBLIC



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# Accreditation Report

## for the Undergraduate Study Programme of:

**Pharmacy**

**Institution: Aristotle University of Thessaloniki**

**Date: 2 July 2021**

Report of the Panel appointed by the HAHE to undertake the review of the Undergraduate Study Programme of **Pharmacy** of the **Aristotle University of Thessaloniki** for the purposes of granting accreditation

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

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

The Panel responsible for the Accreditation Review of the Undergraduate Study Programme of **Pharmacy** of the **Aristotle University of Thessaloniki** comprised the following five (5) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

- 1. Professor Arion Xenofon Chatziioannou (Chair)**  
Department of Molecular and Medical Pharmacology,  
University of California, Los Angeles (UCLA), USA
- 2. Dr Nikoletta Fotaki**  
Department of Pharmacy and Pharmacology, University of  
Bath, Bath, United Kingdom
- 3. Assoc. Prof. Konstantinos Drosatos**  
Lewis Katz School of Medicine at Temple University, Centre for  
Translational Medicine, Centre for Metabolic Disease Research  
Alzheimer's Centre at Temple, Philadelphia, USA
- 4. Dr Georgios Aislaitner**  
Federal Institute for Drugs and Medical Devices  
[Bundesinstitut für Arzneimittel und Medizinprodukte  
(BfArM)], Bonn, Germany
- 5. Mr Emmanuel Katsarakis**  
Panhellenic Pharmaceutical Association, Crete, Greece

## **II. Review Procedure and Documentation**

### **General information and review material**

All relevant review material was received on June 3<sup>rd</sup>, 2021, four weeks prior to the remote visit at the Department of Pharmacy by 3 members of the External Evaluation & Accreditation Panel (EEAP); 10 days before the visit the material was received by 1 member of the EEAP. The last member of the committee joined the day before the meetings started and received the materials. Supplementary material providing clarifications was received before, during and after the site visit by a very responsive team at the Department under review. Throughout the interviews, the chair of the EEAP used the tools provided by ADIP to ensure meetings included only those who should be there, maintaining the confidentiality and integrity of the process.

### **Dates of the site visit**

The virtual visit at the Department of Pharmacy of the Aristotle University of Thessaloniki was carried out from Monday June 28<sup>th</sup>, 2021, until Tuesday June 29<sup>th</sup>, 2021.

### **Committee meetings**

On Thursday June 24<sup>th</sup>, 2021, a briefing took place online via zoom from 4.30 pm to 6:00 pm (Athens time). The General Director of ADIP, Dr. Besta, informed the EEAP about the overall goals of the visit.

On Sunday June 27<sup>th</sup>, the EEAP met via zoom between 6:00pm and 9:30pm, allowing panel members to introduce themselves, discuss the review process, preliminary findings and possible gaps in the materials provided by the Department of Pharmacy. Additionally, the EEAP distributed tasks amongst its members, such as note taking, focus on particular principles, as well as logistics for private panel meeting times and methods for conducting the interviews.

The subsequent EEAP interviews followed the schedule provided by the academic unit, starting with a private meeting with the Vice-Rector/President of University Quality Assessment Committee (MODIP) (Prof. Dimitrios Koveos) and the Head of the Department (Prof. Kyriakos Kachrimanis) between 4:00-4:45pm. Subsequently, the EEAP met with the Internal Audit Team (OMEA) (Prof. Dimitra Hadjipavlou-Litina, Prof. Dimitrios Fatouros, Prof. Christos Panagiotidis, Prof. Aikaterini Markopoulou) and MODIP representatives (Prof. Antonis Goulas, Mrs. Alexandra Tzaneraki and Dr. Konstantinos Aivatzidis). The meeting ended at 7:30 pm, taking additional time to allow for more thorough discussions. During the 15-minute break, the EEAP discussed in private questions and impressions of the most recent interactions. The EEAP continued the interviews at 8:00pm with a teleconference with 9 teaching staff members to discuss professional development, workload, undergraduate curriculum development and possible weaknesses. This interview was followed at 9:00pm by interviews with students spanning most years of study regarding their study experience and student welfare. Of the 14 listed students, only 8 were present. At the end of this first day of interviews which concluded at about 10:00pm, the EEAP held a private debriefing meeting that lasted until 11:00pm.

On Tuesday June 29<sup>th</sup>, 2021, the EEAP members started online meetings at 4:00pm with a pre-recorded video showing classrooms, lecture halls and other laboratory facilities. Technical difficulties of the EEAP chair delayed the start of this session by 10 minutes but were resolved

with the help of the Department of Pharmacy coordinator. Because the videos were part of the promotional material of the Department, and did not always reflect the realities of use, this presentation was stopped before it run its full course, and a discussion was initiated to focus on the real issues of the infrastructure and facilities. Afterwards, the EEAP met with students that graduated from the program to discuss their experience of studying at the Department and career paths. The EEAP also met with employers, social partners and discussed relations of the Department with external stakeholders from the private and the public sector. It was noted that the participants who joined from the private sector were almost exclusively pharmacists, while the invited representatives of the pharmaceutical industry were absent with one exception who came in late. A closing meeting with OMEA and MODIP representatives took place for a discussion on several points/findings which needed further clarification, during which the Chair of the EEAP, presented informally the findings of the visit.

The Panel met online on Wednesday, Thursday, and Friday (June 30<sup>th</sup>, July 1<sup>st</sup> and 2<sup>nd</sup>), 2021 to prepare its report, which was submitted to HQA on Saturday July 3<sup>rd</sup>, 2021.

Summary: The Department of Pharmacy of the Aristotle University of Thessaloniki organized an extensive schedule that allowed meetings and discussions with most of the teaching staff. The EEAP had the opportunity to briefly view teaching and research facilities. The EEAP also met formally with a group of students and selected stakeholders and representatives of MODIP, and OMEA. With the additions prompted by requests of the EEAP, the provided material was of sufficient quality to provide an informed opinion regarding accreditation of this program.

### **III. Study Programme Profile**

The Aristotle University of Thessaloniki (AUTH) with a 95-year history has 11 Faculties and 42 Departments. Currently at the University of Thessaloniki there are 74.749 undergraduate students, 6.502 postgraduate students and 4.468 PhD candidates. The total number of academics is 1628. Academic work is assisted by 513 administrative staff and 626 teaching lab personnel. The University has several facilities including library, sports hall, residence halls and restaurant.

The Department of Pharmacy was established in 1955 in the Faculty of Physico-mathematical sciences. From 1983 to 2003 the Department was part of the Faculty of Health Sciences, followed by a period being an Independent Department (2004-2012), and being again part of the Faculty of Health Sciences since 2013. The Department has 3 Divisions with 5 associated Laboratories. Apart from the Pharmacy Undergraduate Course, it offers 4 Master of Science (MSc) courses and participates in two interdepartmental MSc courses (one with the Department of Medicine and one with the Department of Law).

The nominal duration of the undergraduate studies in the Pharmacy course is five (5) years (ten semesters) and includes lectures, laboratory classes and practical training. Currently, the Curriculum is harmonized (Presidential Decree 4485/ 2017) for the upgrade of the degree to the Master of Pharmacy level (MPharm).

## PART B: COMPLIANCE WITH THE PRINCIPLES

### Principle 1: Academic Unit Policy for Quality Assurance

**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 ALL INSTITUTION'S AREAS OF ACTIVITY, AND PARTICULARLY AT THE FULFILMENT OF QUALITY REQUIREMENTS OF UNDERGRADUATE PROGRAMMES. THIS POLICY SHOULD BE PUBLISHED AND IMPLEMENTED BY ALL STAKEHOLDERS.**

*The quality assurance policy of the academic unit is in line with the Institutional policy on quality, and is included in a published statement that is implemented by all stakeholders. It focuses on the achievement of special objectives related to the quality assurance of study programmes offered by the academic unit.*

*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 programme, its purpose and field of study; it will realise the programme's strategic goals and it will determine the means and ways for attaining them; it will implement the appropriate quality procedures, aiming at the programme's continuous improvement.*

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

- a) the suitability of the structure and organization of the curriculum;*
- b) the pursuit of learning outcomes and qualifications in accordance with the European and the National Qualifications Framework for Higher Education;*
- c) the promotion of the quality and effectiveness of teaching;*
- d) the appropriateness of the qualifications of the teaching staff;*
- e) the enhancement of the quality and quantity of the research output among faculty members of the academic unit;*
- f) ways for linking teaching and research;*
- g) the level of demand for qualifications acquired by graduates, in the labour market;*
- h) the quality of support services such as the administrative services, the Library, and the student welfare office;*
- i) the conduct of an annual review and an internal audit of the quality assurance system of the undergraduate programme(s) offered, as well as the collaboration of the Internal Evaluation Group (IEG) with the Institution's Quality Assurance Unit (QAU).*

### Study Programme Compliance

The Department of Pharmacy has a Quality Assurance Policy (QAP) for the undergraduate programme of Pharmacy which follows the principles set by the University Quality Assessment Committee (MODIP). The QAP along with its relevant documentation is published online, is appropriate for the undergraduate programme and is sufficiently communicated to all parties involved.



Continuous improvement is promoted through the amendment of the provided education programs, the improvement of the students' performance, the development of research, the building of teaching-research links, the development of international links and the improvement of the Department's facilities and services.

Specific, measurable, achievable, relevant and timely goals have been set regarding the study programme. The strategic goals of the Department paired with suitable Key Performance Indicators (KPIs) are aligned to the QAP requirements. A strategy related to a "Business Plan" or a roadmap for the next years has not been set or communicated to the EEAP.

During the virtual visit, the accreditation panel has been informed that the Department has set an External Advisory Board but clear details on its mission, membership, and actions, were not provided.

### Panel Judgement

Principle 1: Institution Policy for Quality Assurance	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

Set a clear framework for the External Advisory Board, defining its membership, incorporation in the operational framework of the Department, mission, actions, and scheduled meetings during the academic year.

## Principle 2: Design and Approval of Programmes

**INSTITUTIONS SHOULD DEVELOP THEIR UNDERGRADUATE PROGRAMMES FOLLOWING A DEFINED WRITTEN PROCESS WHICH WILL INVOLVE THE PARTICIPANTS, INFORMATION SOURCES AND THE APPROVAL COMMITTEES FOR THE PROGRAMME. THE OBJECTIVES, THE EXPECTED LEARNING OUTCOMES, THE INTENDED PROFESSIONAL QUALIFICATIONS AND THE WAYS TO ACHIEVE THEM ARE SET OUT IN THE PROGRAMME DESIGN. THE ABOVE DETAILS AS WELL AS INFORMATION ON THE PROGRAMME'S STRUCTURE ARE PUBLISHED IN THE STUDENT GUIDE.**

*Academic units develop their programmes following a well-defined procedure. The academic profile and orientation of the programme, the objectives, the subject areas, the structure and organisation, the expected learning outcomes and the intended professional qualifications according to the National Qualifications Framework for Higher Education are described at this stage. The approval or revision process for programmes includes a check of compliance with the basic requirements described in the Standards, on behalf of the Institution's Quality Assurance Unit (QAU).*

*Furthermore, the programme design should take into consideration the following:*

- *the Institutional strategy*
- *the active participation of students*
- *the experience of external stakeholders from the labour market*
- *the smooth progression of students throughout the stages of the programme*
- *the anticipated student workload according to the European Credit Transfer and Accumulation System*
- *the option to provide work experience to the students*
- *the linking of teaching and research*
- *the relevant regulatory framework and the official procedure for the approval of the programme by the Institution*

### Study Programme Compliance

The Department of Pharmacy offers an undergraduate degree of 300 European Credit Transfer and Accumulation System (ECTS) credits obtained after successful completion of 47 modules. Studies are expected to be completed in 10 semesters (5 years) and complies with Greek and EU standards. Current student number up to N+2 years (N = 5) is 801.

Curriculum revisions are initiated by OMEA and must be approved by MODIP and the University General Assembly before being finalized. The students have the option to participate in curriculum amendment via their elected representatives in the Departmental and University committees. Revision of the curriculum took into account earlier recommendations that pertained to the reduction of the number of modules to 47 (42 core modules and 5 optional modules) and including new units to cover new scientific disciplines and aspects of pharmacy practice (six new optional units). The curriculum covers essential topics for the education of pharmacists that are in accordance with national and European standards. In the Department's application for the accreditation it is stated that periodic revisions of the programme curriculum will be done, without defining the frequency of this revision. Student Handbooks for the old and the new programme have been included in the documentation provided to the EEAP; the

Student Handbook for the new programme includes description of modules for the 4 semesters only.

Traditional teaching methods are used with attendance of the practical (laboratory) classes being compulsory. A general description of the assessment processes is included in the modules' description without details of the exam format. Exams take place three times each year.

Teaching and research are linked via the diploma thesis, which will be a compulsory module in the new curriculum that leads to the MPharm degree. The high quality of the undergraduate students' training in research skills is further revealed by the research output in national and international conferences (n=35) and peer reviewed journals (n=10) even at the current stage that the diploma thesis is optional.

Work experience is provided through the compulsory Practical Training module, which is set for 6 months in the new MPharm curriculum (12 months in the previous curriculum).

Student support is offered through academic advisors. Erasmus programs are in place giving the opportunity to students to visit higher education institutions in the EU. The positive feedback from Community Pharmacists, as well as the advanced academic, industrial or regulatory career achievements of the Department's graduates speak of the high quality of the programme. The students' initiatives through the Aristotle Team of Pharmacy (May 2014) are impressive.

Given that the highest percentage of the graduates of the School of Pharmacy is employed in community pharmacies, the curriculum should be periodically enhanced with emphasis on applied pharmaceutical practice (i.e. vaccination).

Despite the significant strengths of the programme and the improvements in response to the previous review, the incomplete student handbook, the complete lack of details of assessment procedures and the lack of details for the programme curriculum beyond the first 2 years are considered significant signs of not full compliance for a study programme.

### Panel Judgement

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

## **Panel Recommendations**

- Update and complete the 2019-2020 Student Handbook (description only of the 4 semesters is currently included).
- Define the frequency for the periodic revisions of the programme curriculum.
- Include clear description of the assessment processes and exam format in the Student Handbook and all relevant resources (i.e. the e-platform).
- Enhance students' professional skills (i.e. presentations could be included in the assessment process of several modules of the curriculum to improve/ enhance students' presentation skills).
- Consider a simulated pharmacy for the educational needs of Pharmacy practice and Pharmaceutical care modules. Applied pharmaceutical practices (i.e. vaccination) could be included in the curriculum.

### Principle 3: Student- centred Learning, Teaching and Assessment

**INSTITUTIONS SHOULD ENSURE THAT THE UNDERGRADUATE PROGRAMMES ARE DELIVERED IN A WAY THAT ENCOURAGES STUDENTS TO TAKE AN ACTIVE ROLE IN CREATING THE LEARNING PROCESS. THE ASSESSMENT METHODS SHOULD REFLECT THIS APPROACH.**

*Student-centred learning and teaching plays an important role in stimulating students' motivation, self-reflection and engagement 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, enabling 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;*
- *reinforces 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 students' complaints.*

*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;*
- *the regulations for assessment take into account mitigating circumstances;*
- *assessment is consistent, fairly applied to all students and carried out in accordance with the stated procedures;*
- *a formal procedure for student appeals is in place.*

#### Study Programme Compliance

The arrival of the pandemic with its requirements for distance learning accelerated a movement of didactic classes and lectures to modernized online modules. This appears to be well received by the students, who have taken advantage by being able to slow down lectures, take better notes, repeat challenging sections and enhance their understanding of the subject material. Additionally, this has eased somewhat the limitations of the current building infrastructure which has a modest auditorium compared to the size of the incoming class. Additionally, with audio-visual media, it is possible to have a class simultaneously in two auditoria, allowing live

interactions with questions and answers. Access to other auditoria on campus, should become more streamlined through the online system of the central administration.

Furthermore, movement to online lectures has alleviated problems that were mentioned from occasions where few students were exhibiting disruptive behaviour during live lectures. Maintenance of mutual respect at all times between everyone involved in the educational process (students and staff) in an academic institution is of paramount importance and instances of unacceptable behaviour should be addressed to the full possible extent.

Despite the limitations of the available resources compared to the size of the incoming class, current students felt that lab courses were taught effectively, and these lab courses were the most valued part of the education of recent graduates. The faculty of the department should be commended for their valiant efforts to continue to operate fully functional lab courses, by extending the time schedule significantly beyond typical working hours.

Unlike the findings of the previous external review, the current interviewed students did not appear to have concerns regarding the grading process, and they valued the contributions of the teaching staff of the Department. Additionally, faculty appear to be receptive to customizing the exams to accommodate the needs of students, e.g. with offering oral exams or other means as necessary for students with special needs. On the other hand, the establishment of midterm examinations, something recommended in the previous review appears to not have progressed. Practical issues, especially regarding access to auditoria with appropriate size, and at times that do not conflict with the extensive laboratory classes were mentioned as factors hindering this approach. Modern online methods of evaluation as developed during the pandemic should help relieve this concern, and therefore we recommend that this approach is revisited in the near future.

Foundational introductory classes offered from different departments had a mixed report. Some faculty that offered their services did a commendable job customizing their lectures for the students of the Department of Pharmacy, while others performed at the other end of the spectrum. The AUTH should take this concern seriously and should ensure that student evaluations from lectures outside their home department, are following the faculty, and have a direct impact on their periodic review and advancement.

A commendable initiative undertaken by students in 2014, who founded the non-profit organization named Aristotle Team of Pharmacy, continues by the next generation of students. This initiative serves as a platform that engages students to scientific and professional activities, thus enhancing the learning outcome of the programme.

The iGEM Research Team also constitutes an initiative that fosters interdisciplinary interaction among students of different basic sciences departments of the AUTH. The iGEM prepares selected student groups for participation in international competitions. The AUTH student groups, who are trained by a faculty of the Department of Pharmacy, won the silver medal in 2018 and the gold medal in 2019.

Due to the remote nature of the review, the committee could not confirm whether the building was wheelchair accessible. The auditorium though appeared to have a ramp for wheelchair access.

A formal procedure for student appeals is foreseen but the committee could not comment on its functional status.

### Panel Judgement

<b>Principle 3: Student- centred Learning, Teaching and Assessment</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

### Panel Recommendations

- Continue making online teaching material available to students. Investigate the possibility to provide lectures through mixed mode, via in person in one room and video in another room, allowing Q & A.
- Continue exploring online methods for student evaluation, which should at least temporarily alleviate the space limitations.
- Enforce that students are respectful to each other and to teaching staff. It is not acceptable to have live lectures being disrupted by students who are not interested in the class (especially since attendance to didactic lectures is not obligatory).
- Utilize the AUTH provided resource of classroom reservation at other campus locations, whenever possible.
- Continue to pursue the use of midterm examinations, which should enhance student engagement.
- Ensure that poor performance of faculty from other departments does not become habitual, by pursuing all possible enforcement avenues in coordination with the central AUTH administration. Students who report poor faculty performance are not responsible for the disrespectful behaviour of a few members of faculty.

## Principle 4: Student Admission, Progression, Recognition and Certification

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

*Institutions and academic units need to put in place both processes and tools to collect, manage and act on information regarding student progression.*

*Procedures concerning the award and recognition of higher education degrees, the duration of studies, rules ensuring students progression, terms and conditions for student mobility should be based on the institutional study regulations. Appropriate recognition procedures rely on institutional practice for recognition of credits among various European academic departments and Institutions, in line with the principles of the Lisbon Recognition Convention.*

*Graduation represents the culmination of the students' study period. Students need to receive documentation explaining the qualification gained, including achieved learning outcomes and the context, level, content and status of the studies that were pursued and successfully completed (Diploma Supplement).*

### Study Programme Compliance

The administrative component of the course from student admission through graduation does not seem to have any flaws. During discussions of the panel with students, no concern was expressed about aspects that pertain to execution and monitoring the progression of their studies. Progress of the students towards graduation is monitored through the Department's secretariat that collects grades for lab classes and courses, as well as documentation for other required courses or activities (research thesis, practical training).

The Department organizes a "Welcoming session for incoming students" to familiarize them with the curriculum, the structure of the Department, as well as the facilities and opportunities that exist within the Department and the University pertinent to student life and well-being, including. None of the students expressed concerns about adaptability challenges.

The Department has established a Student Advisor program that students commented very positively on regarding guidance during progression of their studies and career counselling. The faculty seem to be highly engaged and supportive to students' needs and requests. Some students that arrived through transfer were not participating in this successful program.

The Department has access to the ERASMUS student exchange program of the EU and other affiliated countries. Approximately 5-10 students participate in the program annually, which the committee finds reasonable. On the other hand, the students seemed to be less aware of opportunities for short-term internships in academic institutes or industry. So far, encouragement of students to explore such paths is based on individual initiatives undertaken sporadically by a few faculty members.

Along the lines of a non-existing Departmental mechanism for rewarding research and teaching excellence among faculty, other than personal satisfaction, the committee did not become aware of any mechanism that promotes excellence among students.

Approximately 30-40% of the active students pursue an undergraduate research thesis, which currently is an optional activity. According to the Department's alumni, this has been the most



valuable experience of their studies. Department’s alumni that now pursue graduate studies or professional careers abroad stressed the value of writing their research thesis in English, so that it could be used for their applications.

The “Practical Training” module also constitutes a central component of the students training, which is mandatory for graduation. The duration of 1 year was deemed necessary by few of the representatives of professional entities that the committee met with. According to the EU standards and to most stakeholders, the new 6-month duration is sufficient.

Upon graduation, the students are provided with diploma supplements written in both Greek and English language, which the committee finds to be useful and in accordance with EU standards.

### Panel Judgement

<b>Principle 4: Student Admission, Progression, Recognition and Certification</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

- The EEAP is confident that though the ratio of 10 freshmen/faculty is not unusual, alleviation of faculty from administrative responsibilities would make the “Student Advisor Program” even more successful for planning studies and exploring other options. As an example, academic or industry-based student internships would make the learning outcome even more meaningful and productive and should be explored.
- Establish a mechanism for promotion of student excellence throughout the course of their studies. An award ceremony for students of senior years during the welcoming session of freshmen, will demonstrate prioritization of excellence and will set the stage for the expectations that the Department has for the incoming class.
- Informative sessions about student research internships in other academic institutes and the industry need to be organized. Information about available opportunities can be posted on the Department’s website.
- Activities such as career fairs, for senior undergraduate students could serve as platforms that would get junior undergraduate students in proximity with career advisors, who would direct them to such opportunities.

- In light of the previous evaluation that included concerns about the low average grades of the students, an excellence-based reward mechanism will promote competition and improvement of their performance, while it will constitute a point of reference in their profiles that will draw attention during their explorations for professional and academic development.
- The development of a system that will mandate passing of certain courses as requirements for successful transfer of the student to the next year's class will improve the learning outcome and will shorten graduation time.
- The EEAP thinks positively about the plans to make the research thesis mandatory for graduation, as soon as space challenges are resolved, so that all students can be accommodated in the existing laboratory space without compromising safety regulations.
- While the EEAP recognizes the importance of the continuation of the Greek scientific language, it strongly encourages the exploration of ways for a more extensive use of English than presentation of the abstract of a research thesis.
- Considering both the importance for training in a real professional environment, particularly when the largest fraction of the graduates is employed by a community pharmacy, as well as the positive research thesis experience of students and alumni, the EEAP's consensus is aligned with the suggestion to divide the 5<sup>th</sup> year of studies in 2 half-year sessions of both Research Thesis and Practical Training.
- Continue implementation of the student advisor system and make sure that it is as widely applied as possible, including to transfer students.

## Principle 5: Teaching Staff

**INSTITUTIONS SHOULD ASSURE THEMSELVES OF THE QUALIFICATIONS AND COMPETENCE OF THE TEACHING STAFF. THEY SHOULD APPLY FAIR AND TRANSPARENT PROCESSES FOR THE RECRUITMENT AND DEVELOPMENT OF THE TEACHING STAFF.**

*The Institutions and their academic units have a major responsibility as to the standard of their teaching staff providing them with a supportive environment that promotes the advancement of their scientific work. In particular, the academic unit should:*

- *set up and follow clear, transparent and fair processes for the recruitment of properly qualified staff and offer them conditions of employment that recognize 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 members (with respect to attendance requirements, performance, self-assessment, training etc.);*
- *develop policies to attract highly qualified academic staff.*

### Study Programme Compliance

Significant attrition in the middle of the past decade, brought the number of teaching staff to critically low levels. Currently, the department appears to be on a path to recovery, with a number of new faculty appointments. Recruitment of qualified staff follows procedures that are determined by state law, adapted to the needs of the department. While the overall number of teaching staff is still lower than historical levels, these new hires are covering the required knowledge areas adapted to the new curriculum. Additionally, these new faculty are starting to take departmental leadership positions, creating an effective transition plan that will hopefully become integral to a continuous renewal process. Anticipation for future vacancies should be considered in strategic planning for timely preparation.

While teaching the required curriculum is the primary goal of the Department, a number of faculty appear to have vibrant research programs, with a strong status in the field evidenced through peer reviewed publications and funding. Unfortunately, the provided records of funded projects were incomplete, and did not describe the full scope and scale of these research projects, especially the total value of the funds that were competitively awarded in addition to the dates. This renders impossible an objective evaluation of this important aspect of the contribution of the Department to the AUTH, the local community and Greece overall. The current method of allocation of funds by the AUTH based on student population and number of lab courses, is not fully effective. This was evidenced by the fact that it appeared that there were no incentives for faculty to bring extra research funds. A flow of funds from grant overhead from the central AUTH administration to the Department in proportion to the productivity of the academic unit, is an internationally recognized tool. The committee was verbally informed that this is not the policy of the AUTH.

During the discussion of the committee with the teaching staff, the faculty did not have a clear answer to the exact teaching hours they had. This was surprising, as it was clear that many of them were working long hours, and required many repetitions of lab classes, to account for the small size of the labs with respect to the size of the incoming class. A written request towards the actual student contact hours of each teaching staff answered this question, and the average contact hours for teaching staff is comparable to similar undergraduate teaching institutions. This average though masks significant differences, as the contact hours ranged from a low of 3 hours/week to a high of 16 hours/week. A frequent practice to address this inequity is that faculty bringing research contract funding can reduce their purely didactical teaching hours based on an institutionally developed formula. The educational contact hours for such faculty remain high but are spent in smaller group research settings. Scholarly activity, in terms of research and publications, is strongly encouraged and should continue to be so, as it elevates the overall level of the study programme, by exposing students to cutting edge research.

During the discussion with the teaching staff, a significant number of them appeared to be unprepared for questions regarding their advancement and professional development, which surprised the EEAP members. Within this context, questions regarding career advancement, and promotions were not very productive. The Department leadership should promote the use of programs such as Erasmus and incentivize faculty to take advantage of similar programs for continuing career development and education. Despite this obvious limitation, Department leadership appears to have an overall effective policy for advancing the most active faculty to leadership positions.

The interviews of current students and recent graduates, as well as the written evaluations, were uniformly strong regarding the commitment of the Department teaching staff to the educational process. It was not clear though, how these strong evaluations translated to recognition and career advancement of the teaching staff, beyond personal acknowledgement or self-satisfaction.

The committee did not become clearly aware of a mechanism that the Department or the University has implemented to resolve offensive or disrespectful action by faculty to students or vice-versa. During discussions with students the committee became aware by several students of such action that was demonstrated by faculty of another Department that served as a teaching instructor. This important issue was raised during the closing session with faculty and the Department leadership and the response about the protocol that the Department has implemented for resolving such issues was not informative.

The Aristotle Centre for Pharmaceutical Research and Development is a promising new initiative but does not yet appear to be operational. We hope that in the immediate future, it will contribute, and we are expecting to see this development discussed in the future.

## Panel Judgement

Principle 5: Teaching Staff	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

## Panel Recommendations

- Prepare and articulate a strategic plan in anticipation of the near future changes in faculty.
- Work with AUTH leadership to provide stronger incentives for faculty to bring extramurally funded research projects.
- Create incentives by rewarding faculty for excellence in teaching.
- Facilitate, encourage and create incentives for participation of faculty in continuous education activities and programs such as the Erasmus.
- Ensure that both negative and positive student evaluations have a significant impact to the educational process.
- Establish code of conduct for offensive or disrespectful treatment of faculty by students and vice-versa and resolve relevant issues in a more structured way rather than personal interventions.

## Principle 6: Learning Resources and Student Support

**INSTITUTIONS SHOULD HAVE ADEQUATE FUNDING TO COVER TEACHING AND LEARNING NEEDS. 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, BOARDING, CAREER AND SOCIAL POLICY SERVICES ETC.).**

*Institutions and their academic units must have sufficient funding and means to support learning and academic activity in general, so that they can offer to students the best possible level of studies. The above means could include facilities such as libraries, study rooms, educational and scientific equipment, information and communications services, support or 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 or international students, students with disabilities) and 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 ensures that all resources are appropriate, adequate, and accessible, and that students are informed about the services available to them.*

*In delivering support services the role of support and administrative staff is crucial and therefore they need to be qualified and have opportunities to develop their competences.*

### Study Programme Compliance

Following the meetings of the committee with faculty, students and alumni, a concern that was broadly raised pertained to the teaching resources and primarily the auditoria and classrooms for lab teaching and coursework. This is a major concern that pertains to the safety of faculty and students, especially for overcrowded educational laboratory areas. Students and faculty reported that in various cases, students need to sit on the floor or the staircase, which although may reflect on the popularity of the class, it does not constitute an element of productive learning experience. On the other hand, the committee was not informed in a well-organized way of specific needs and available resources that could resolve the issue even temporarily. While the seating capacity of 80 people in the largest auditorium ( $\Delta 12$ ) that is availed through the School of Basic Sciences does not suffice to cover the needs of the 1<sup>st</sup> year class that exceeds 140 students, it was not clear how many usually attend the classes and whether a hybrid classroom model with both in-person and remote attendance either from home or from a smaller overflow room would solve the problem until the space issue is resolved. In addition, the Department's faculty did not seem to be aware of an existing electronic system for University-wide classroom management.

During the meetings with teaching faculty, it was reported to the EEAP that an act of arson took place at the underground floor of the building that the Department is housed, during which a person was trapped in the elevator and had an asphyxia-related life-threatening experience. Such an incident raises security-related concerns that pertain to the safety of the students and the faculty.

Facilities of the building that the Department is housed in are disfigured by various groups who have access to supposedly secure areas. The committee became aware of graffiti on the highest floor of the 10-floor building that is shared between the Department of Pharmacy and the Department of Biology. Additionally occupation of a large room (that was initially designed to host student activities) by anarchist groups for more than 30 years, poses serious threat to the safety of students and faculty, and is squandering hard earned and scarce resources.

Regarding academic learning resources, while the teaching faculty has adapted to the e-learning platform of the University, they were uninformed about electronic educational tools that allow frequent instructor-student interaction and continuous assessment of the engagement of the students.

Although the “student advisor” model works well for individual student-faculty interaction, a structured career counselling service that would facilitate organization of informative sessions and other activities for career development do not seem to be available within the Department. In many Universities, it is not uncommon to have “Research in Progress” and Journal Club sessions chaired by one or two faculty, where undergraduate students, who pursue a research thesis, convene to present and discuss about their work and Question by the EEAP about space availability to the Department’s staff was responded unclearly. One of the faculty mentioned that it is 33 m<sup>2</sup>/staff person. As an example, the National Institutes of Health in the USA, which has state of the art facilities, avails 160 usable square ft. i.e. ~15 m<sup>2</sup>/investigator ([link](#)).

The students that the committee met with electronically participated in the meeting from their houses. Thus, the committee could not become aware of the quality of dormitories.

The Department avails student support services provided by the University to all students and the Department’s website includes links to informative relevant webpages of the University.

No concern was expressed about the secretariat services by students or faculty other than that the office is next to a research lab.

The students and faculty have access to scientific literature through the HEAL-Link Greek University libraries association.

### Panel Judgement

<b>Principle 6: Learning Resources and Student Support</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

## Panel Recommendations

- Work with the central administration of the AUTH to increase security by converting the building to a controlled access facility (security person at the entrance at least for 16 hours/day, locked doors when security guard is not present, electronic ID for access if possible).
- Cooperate with the central AUTH administration and the University security/police to vacate space that is occupied by groups that are not officially registered with the University and make it available for the Department.
- Explore innovative ways to maximize outcome of the existing resources even after the COVID-19 pandemic is behind us. Hybrid classrooms, where students can participate either in person or remotely from home or an “overflow” room, may constitute a temporary solution until a larger auditorium becomes available to the Department.
- Improve the e-learning content by setting a standard of minimum material that the instructors need to upload.
- Support education of teaching staff in use of modern electronic educational tools that allow interaction during the class and remote participation in exams until the space issue is resolved.
- Establish annual “Student Research & Career Day”, where students will be presenting their research work, compete for awards, and have the opportunity to discuss with faculty and industry representatives about ways to enhance their learning experience and opportunities that they should explore for internships in Pharma Industry, research internships in academic institutions in Greece and abroad, and graduate programs that they may consider for their future studies and professional development.
- Expand the secretariat services that are provided online or via remote access. This will limit in-person visits to necessary only and the already limited space that is availed for secretariat services will be depopulated.

If construction of a new building is not foreseeable, reorganization and renovation of existing facilities in a way that will maximize space utilization is strongly recommended. Modern practices, such as open lab space (shared space between laboratories of similar research interests), high top tables and chairs that take up less space for teaching laboratories and simultaneous use of separate rooms via teleconference tools should be explored.



## Principle 7: Information Management

**INSTITUTIONS BEAR FULL RESPONSIBILITY FOR COLLECTING, ANALYSING AND USING INFORMATION, AIMED AT THE EFFICIENT MANAGEMENT OF UNDERGRADUATE PROGRAMMES OF STUDY AND RELATED ACTIVITIES, IN AN INTEGRATED, EFFECTIVE AND EASILY 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 as well as to the academic community.*

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

*The information gathered 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 programme(s)*
- *availability of learning resources and student support*
- *career paths of graduates*

*A number of methods may be used for collecting information. It is important that students and staff are involved in providing and analyzing information and planning follow-up activities.*

### Study Programme Compliance

The Department has been up to now successful in communicating with its undergraduate students either through its website or through mass or personalized emails. There is systematic collection of data regarding students and teaching methods but not a systematic approach for the graduates. There are some contacts based on personal initiatives from graduates and academic staff.

There is the AUTH alumni association <https://alumni.auth.gr/> and the association of graduates of the AUTH Department of Pharmacy <http://www.syllogos-aristotelis.com/> publishing a magazine (last publication December 2018).

There is more than sufficient information for academic teaching staff (CVS, contact details). There was not a single case of an academic person who denied help to students.

There is a description of the subjects on <https://www.pharm.auth.gr/el/node/749>.

The course description data (M1 description sheets) are also available on the website of the MO.DI.P (<https://qa.auth.gr>, Quality Assurance Unit) of the Aristotle University of Thessaloniki.

There is also an electronic platform <https://elearning.auth.gr/auth>, where lectures and other materials are posted for the students to access it. This platform should be revised/reviewed.

For collection of data there are Questionnaires distributed and collected anonymously near the ending of the cycles of lectures (per semester) in each subject and before the exams for the

teaching of lessons and the performance of the lecturers. Evaluation of lectures (questionnaires) is performed electronically via a MODIP webpage <https://qa.auth.gr/student> near the end of each semester and before the exams.

The questionnaires concern:

- the rationality of the curriculum (student assessment),
- student satisfaction related to the teaching,
- sufficient communication of the syllabus at the beginning of the semester,
- average number of hours per student attendance per day.

Significant effort is made to transform information from the satisfaction surveys to action for improvement via to systematic analysis and communication of the conclusions. Frequently, this becomes a challenging process, particularly when it entails interaction of the Department of Pharmacy with other Departments/Academic units of AUTH (e.g. Medical School, Chemistry, Physics and Mathematics).

The website of the student electronic registry constitutes the main source of information on the key performance indicators of students in their respective courses (<https://sis.auth.gr>, Student Information System).

The initiatives and the actions organised by ATP (Aristotle Team of Pharmacy) are also available. There are graphs for students entering and finishing their studies, but there is no data related to their careers and achievements afterwards.

### Panel Judgement

Principle 7: Information Management	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

A systematic approach for the collection of data and a communication scheme with graduates on regular basis would be helpful for both students and academic staff to keep track of their students' development. Virtual reunions could be an option, now that the COVID-19 pandemic has highlighted the use of solutions and applications for videoconferencing.

## Principle 8: Public Information

**INSTITUTIONS SHOULD PUBLISH INFORMATION ABOUT THEIR TEACHING AND ACADEMIC ACTIVITIES WHICH IS CLEAR, ACCURATE, OBJECTIVE, UP-TO-DATE AND READILY ACCESSIBLE.**

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

*Therefore, institutions and their academic units provide information about their activities, including the programmes they offer, the intended learning outcomes, the qualifications awarded, the teaching, learning and assessment procedures used, the pass rates and the learning opportunities available to their students, as well as graduate employment information.*

### Study Programme Compliance

Key information, such as brief history of the Department, information on the faculty staff, study programmes for undergraduate and postgraduate students, various committees cooperating with the Department and information for students for conferences, scholarships and awards, is available online <https://www.pharm.auth.gr>.

CVs, contact details and related information of the academic staff is readily available online. Each division has its own webpage with relevant information:

<https://www.pharm.auth.gr/el/pharmaceutical-chemistry>,

<https://www.pharm.auth.gr/el/pharmaceutical-technology>, and

<https://www.pharm.auth.gr/el/pharmacognosy-pharmacology>.

The Department's Home page on the website is regularly updated by two of the five administrative employees of the Secretariat of the Department of Pharmacy with announcements and useful information for undergraduate students every day (mainly related to exams and how these will be conducted). Last webpage of the announcements was 299<sup>th</sup> from the 10<sup>th</sup> of January 2012.

Information about certificates, dates of specific ceremonies and practical training is also available on the Secretariat's webpage <https://www.pharm.auth.gr/el/secretariat>.

The list of courses and syllabus for each course are available online since 2013 (<https://www.pharm.auth.gr/el/studies-bulletin>). Syllabus for the year 3, 4, and 5 courses of the new curriculum (beyond first 4 semesters) should be updated.

Information about undergraduate courses of the programme is available online with a dedicated hyperlink for each course leading to detailed information (<https://www.pharm.auth.gr/el/node/749>).

Dedicated links are also available for the AUTH Policy for Quality Assurance (<https://www.pharm.auth.gr/el/node/3853>) and Department of Pharmacy Policy for Quality Assurance (<https://www.pharm.auth.gr/el/node/4263>).

Overall, sufficient information is provided for the essential components of the student studies and operation of the Department, and it is easily accessible.

### Panel Judgement

<b>Principle 8: Public Information</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

There are no specific recommendations for this principle, and none is necessary.

## Principle 9: On-going Monitoring and Periodic Internal Review of Programmes

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

*Regular monitoring, review and revision of study programmes aim to maintain the level of educational provision and to create a supportive and effective learning environment for students.*

*The above comprise the evaluation of:*

- *the content of the programme in the light of the latest research in the given discipline, thus ensuring that the programme is up to date;*
- *the changing needs of society;*
- *the students' workload, progression and completion;*
- *the effectiveness of the procedures for the assessment of students;*
- *the students' expectations, needs and satisfaction in relation to the programme;*
- *the learning environment, support services and their fitness for purpose for the programme*

*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. Revised programme specifications are published.*

### Study Programme Compliance

Data collection is performed digitally, and the results are available online. The presentation is detailed and comprehensive covering all the necessary aspects of the educational process and policy. There is also detailed information about educational needs, student's accommodation, educational and research skills of the teaching staff but also about the internal assessment committees responsible for data collection and monitoring.

The teaching staff and the students are informed for the Quality Assessment Policy at the start of every academic year and the students are encouraged to assess the school of Pharmacy just before the end of each academic year.

The results of External Assessment, Annual internal Assessment, Student Assessment and the opinions of the relevant Industry stakeholders are taken in consideration and actions are taken in order to make changes towards the improvement of the educational process.

Action plans are designed and implemented substantially given the considerable difficulties present, such as the insufficient infrastructure and equipment.

## Panel Judgement

<b>Principle 9: On-going Monitoring and Periodic Internal Review of Programmes</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

## Panel Recommendations

There are no specific recommendations for this principle, and none is necessary.

## Principle 10: Regular External Evaluation of Undergraduate Programmes

**PROGRAMMES SHOULD REGULARLY UNDERGO EVALUATION BY COMMITTEES 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 programme accreditation process which is realised as an external evaluation procedure, and implemented by a committee of independent experts. HAHE grants accreditation of programmes, with a specific term of validity, following to which revision is required. The accreditation of the quality of the programmes acts as a means of verification of the compliance of the programme with the template's requirements, and as a catalyst for improvement, while opening new perspectives towards the international standing of the awarded degrees.*

*Both academic units and institutions participate in the regular external quality assurance process, while respecting the requirements of the legislative framework in which they operate.*

*The quality assurance, in this case the accreditation, is an on-going process that does not end with the external feedback, or report or its follow-up process within the Institution. Therefore, Institutions and their academic units ensure that the progress made since the last external quality assurance activity is taken into consideration when preparing for the next one.*

### Study Programme Compliance

The last external evaluation for the School of Pharmacy was performed in 2013.

Since then, most of the recommendations of the committee such as enrichment of the teaching material, towards improving the connection with society and employment stakeholders needs were fulfilled after having made appropriate actions. A recommendation with considerable justification such as the formation of an independent committee that will compare the European and national UGCs and harmonize the UGCs of all Pharmacy Departments in Greece could not be implemented.

All participants in the relevant bodies and evaluation committees (OMEA and MODIP) have shown considerable interest and take initiatives in order to adapt to the findings. More efforts should be made from all faculty members to ensure that the results of the review percolate into the changes of the educational process.

## Panel Judgement

<b>Principle 10: Regular External Evaluation of Undergraduate Programmes</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

## Panel Recommendations

There are no specific recommendations for this principle, and none is necessary.



## **PART C: CONCLUSIONS**

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

The current study program is well developed and strong, as it satisfies the needs of the vast majority of stakeholders. The student body is mostly happy with the performance of the teaching staff of the Department and with what they learn, while the majority of recent graduates are fully employed in their area. Additionally, employees are also mostly satisfied with the experience and knowledge of recent graduates. The emphasis given to laboratory classes is warranted, as they constitute the most valued experience of recent and past graduates.

The changes made to the study program since its last review have modernized the content and are seen very positively. Harmonization of the degree type with European standards (MPharm) is a welcome addition.

The transition to online teaching and evaluation, as well as exam taking, precipitated by the pandemic should continue, as it enhances the value of the educational experience for some students, while it alleviates problems with available infrastructure. A hybrid approach with both in-person and remote participation in the lectures could be optimal.

The role of the Academic Advisor is successful, and it is strongly encouraged to continue its implementation to as many students as possible.

The planned inclusion of diploma thesis to all students is a strong point. Consider having an option for doing this in English.

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

The available building space and especially laboratory infrastructure appears to be problematic and small compared to the size of the active student cohort.

Safety of the students and staff and the Departmental space and equipment should also be strengthened.

A part of teaching faculty did not appear to be motivated to take advantage of continuing education opportunities for their further development. This development is expected to enhance the educational experience of the student body.

The syllabus for the Years beyond the 4<sup>th</sup> semester needs to be presented in the Students Handbook more thoroughly.

The current method of overhead fund allocation from the AUTH based solely on the number of students and class type (according to the discussions with OMEA) is not incentivizing the Department to pursue external funding from grants, contracts and the private sector.

According to published statement from the Panhellenic Union of Pharmaceutical Industries, Greece has a strong pharmaceutical industry, contributing to the national GDP and providing many jobs. Relationships with this industry were not a clearly stated point of present or future focus of the Department.

Teaching evaluations for courses though from other departments did not appear to have a direct impact on the improvement of classes.

The Department did not articulate a strategic vision for the next 5 years.

### III. Recommendations for Follow-up Actions

- Work with the central administration of the AUTH to find a solution that will improve access to existing and secure additional teaching facilities in order to accommodate the size of the student body. Allow access to teaching and research facilities only to registered members of the Department.
- Continue to adapt to a curriculum with more emphasis on applied pharmaceutical practice (e.g., vaccination) leading to additional professional rights without compromising the scientific component that an undergraduate curriculum is meant to give emphasis on.
- Ensure that the external advisory board is active, meets on a regular basis, and offers recommendations to the leadership of the Department.
- Ensure that the organization of the teaching e-learning platform is improved, its content is complete and continuously updated.
- Rather than being reactionary, the Department should develop a proactive strategic plan that:
  - Anticipates hiring faculty that will cover new study areas and replace expected retirements.
  - Formulate and act on ideas for expanding relationships in teaching and research with the pharmaceutical industry locally and regionally.
  - Develop a vision in terms of creating new areas of specialization that could be covered with advanced degrees or certificates following the needs of the market and guidance from the local and regional stakeholders. Increase communication with graduates of the program.
  - Develop a business model that will create resources for continued operation of the Department in a way that it can invest in new initiatives.
- Incentivize staff for excellence in teaching with the creation of local awards.
- Create incentives for faculty to take advantage of continued education opportunities.
- Work with the central administration of the AUTH to provide a transparent mechanism for direct and measurable incentives to the Department and the faculty as a reward for success in obtaining research grants.
- Ensure that student evaluations, whether positive or negative, have a direct impact to improve the quality of the lectures, whether these are from within or outside the Department.
- Use successes in items 2, 3, 4 and 5 as factors in faculty evaluation not only for promotion and advancement.
- Continue to work with the central administration of the AUTH to improve security of the building, and free all the spaces in that building to its intended educational purpose.

#### IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are: **1, 4, 7, 8, 9, and 10.**

The Principles where substantial compliance has been achieved are: **2, 3, 5, and 6.**

The Principles where partial compliance has been achieved are: **None.**

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

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

## The members of the External Evaluation & Accreditation Panel

### Name and Surname

### Signature

- 1. Professor Arion Xenofon Chatziioannou (Chair)**  
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