



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
HELLENIC REPUBLIC



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Ανώτατης Εκπαίδευσης**
Hellenic Authority
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Accreditation Report for the Undergraduate Study Programme of:

Computer Science
Institution: Hellenic Open University
Date: 17 April 2021

Report of the Panel appointed by the HAHE to undertake the review of the Undergraduate Study Programme of **Computer Science** of the **Hellenic Open University** for the purposes of granting accreditation

TABLE OF CONTENTS

Part A: Background and Context of the Review	4
I. The External Evaluation & Accreditation Panel.....	4
II. Review Procedure and Documentation	5
III. Study Programme Profile	9
Part B: Compliance with the Principles	10
Principle 1: Academic Unit Policy for Quality Assurance.....	10
Principle 2: Design and Approval of Programmes	13
Principle 3: Student- centred Learning, Teaching and Assessment.....	16
Principle 4: Student Admission, Progression, Recognition and Certification	19
Principle 5: Teaching Staff	21
Principle 6: Learning Resources and Student Support	23
Principle 7: Information Management	25
Principle 8: Public Information	27
Principle 9: On-going Monitoring and Periodic Internal Review of Programmes	29
Principle 10: Regular External Evaluation of Undergraduate Programmes.....	32
Part C: Conclusions	33
I. Features of Good Practice	33
II. Areas of Weakness	33
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 Undergraduate Study Programme of **Computer Science** of the **Hellenic Open University** comprised the following five (5) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

- 1. Dr Haralambos Hatzakis (Chair),**
Biotronics3D Ltd, United Kingdom
- 2. Prof. Nikolaos Bourbakis,**
Wright State University, Ohio, USA
- 3. Prof. Costas Iliopoulos,**
King's College London (KCL), United Kingdom
- 4. Prof. Emeritus Panagiotis Papamichalis,**
Southern Methodist University, USA
- 5. Dr. Paraskevas Dalianis,**
UniSystems S.A., Quest Group, Greece

II. Review Procedure and Documentation

The Hellenic Authority of Higher Education (HAHE) formed an external and independent panel of experts to conduct an assessment of the quality compliance of Computer Science Undergraduate programme (UGP) of the Hellenic Open University (HOU). The assessment was in accordance with the HAHE Quality Assurance requirements and the Guidelines for Accreditation. It was conducted on-line (using zoom telepresence, as a consequence to the COVID-19 pandemic and the resulted restriction of on-site visits) through interviews and document reviews.

The method used was evidence-based on sampling of the Computer Science study programme's activities and it was aimed to evaluate the fulfilment of the HAHE requirements of the relevant Quality Standard of the Study Programme and comment on its compliance, effectiveness and applicability for the scope of the requirements. The information provided by the Institute was assumed to be factually correct.

As this was the first accreditation of the study programme of the Computer Science, specific attention was given to the policies, procedures and quality criteria in place. Full evidence of results in all areas of the Internal Quality System was not sought.

On Thursday the 8th of April 2021 at 17:30 the External Evaluation & Accreditation Panel (EEAP) attended an online meeting with the Hellenic Authority for Higher Education, at which Dr. Christina Besta, HAHE Director General explained the Accreditation Procedure and the role and tasks of the EEAP members (HAHE Orientation meeting). On Monday the 12th of April at 16:00 the EEAP members had a short online meeting to organise their meetings, coordinate their work and be prepared for the accreditation event.

On Tuesday the 13/4/21 at 16:00, at the welcome meeting, the EEAP met online the Vice-Rector and President of the Quality Assurance Unit (MODIP), Professor Efstathios Efstathopoulos, the Dean of the School of Science and technology Professor Ioannis Kalavrouziotis, the Study Programme Director Professor Dimitrios Kalles and the MODIP/MEAE member Mr. Nikos Karousos. Initially prof. Efstathopoulos welcomed the EEAP on behalf of the HOU and gave a broad overview of the history and developments of the University, with emphasis on the unique differentiator of the HOU due to its unique remote teaching dimension. Prof. Kalavrouziotis and Prof. Kalles gave a presentation of the UGP, its structure, history, academic profile, current status, strengths and possible areas of concern.

The EEAP subsequently had online meetings with:

OMEA and MODIP representatives: Professor Efstathopoulos, Professor Kalles, members of the OMEA (Professor Maria Hadjinikolaou, Assistant Professor Argyro Sgourou, Assoc. Professor Theophanis Orphanoudakis), MODIP representatives (Professor Vassilia Hatzinikita, Professor Stylianos Zerefos) and MODIP staff (Ms Evangelia Kaldani, Mr Nikos Karousos, Mr Serapheim Karaiskakis). The degree of compliance of the UGP to the Quality Standards for Accreditation was discussed. Further explanations and clarifications with regard to the overall evaluation process and the way these are supported and coordinated by the OMEA were provided and

answered a series of questions from the EEAP. Supplementary information in response to a number of questions posed by the EEAP was provided.

Teaching Staff members: Teaching staff members (DEP) (Assoc. Prof. Theophanis Orphanoudakis) and Adjunct Teaching Staff (SEP) (Prof. Maria Virvou, Prof. Lazaros Iliadis, Assoc. Prof. Dimitrios Fotakis, Prof. Spyridon Denazis, Prof. Christos Zaroliagkis, prof. Ioannis Chatzilygeroudis, Professor Panagiotis Fitsilis, Professor Georgios Kormentzas, Professor Michail Vrachatis, Professor Aristeidis Lykas, Dr Christos Koutsikas). Their teaching experience was discussed.

Concluding the day, the EEAP members had a debriefing online meeting, exchanging their understanding about the findings of the discussion, and organising the second day of the accreditation meetings.

On Wednesday the 14th of April 2021, the EEAP had online meetings with the following groups:

1. Current undergraduate students of the programme: 12 students participated online. During the meeting, the students expressed their satisfaction with the Department and the programme of study, their contribution in the ongoing evaluation processes, and their appreciation of their study programme, practice and research opportunities provided to them. In addition, they commented on a number of additional student-centred activities supported by the Department. The students had a very positive opinion about their relationship with the members of the teaching Faculty and their support, responsiveness and the attention they received throughout their academic life. They also expressed their enthusiasm for their overall learning experience.
2. On-line tour of available facilities: Study Programme Director Professor Kalles, Teaching Staff Member (DEP) Professor Orphanoudakis, Adjunct Teaching Staff (SEP) (Dr Vasileios Fotopoulos, Dr Kostas Giannakopoulos), Chief of Administration Officers Mr Ilias Gkotsopoulos, and Administrative Staff Members (Mr Kyriakos Pertopoulos, Ms Georgia Mara, Ms Panagiota Papanikolaou and Ms Alexandra Christakopoulou). The EEAP had the opportunity to discuss the facilities available to the programme and participate on a video call reviewing remotely the facilities and materials of one of the Labs of the programme.
3. Programme Graduates: 11 Programme Graduates participated online (Mr Dimitrios Leader (Hellenic Military Geographical Service (details withheld for national security reasons), Mr Thanasis Nikolaidis (European Asylum Support Office, ICT Assistant Service Desk), Mr Kostas Douvaras (Quality Assurance Lead at ProcureShip S.A.), Mr Tasos Papadopoulos (Head of Marketing & Customer Support Section, Testing Research & Standards Center, PPC), Mr Tasos Kanellopoulos (Hellenic Air Force (details withheld for national security reasons), Ms Eleni Christodoulopoulou (freelancer), Ms Mina Marmpena (PhD, Machine Learning Scientist), Mr Tasos Spiliopoulos (Software Engineer / IPTO S.A. / Information Technology and Telecommunications Department), Ms Ourania Nika Golemati (Permanent Administrative Officer at the secretariat Department of Civil

Engineering - University of West Attica), Mr Spyros Tzortzakos (SAP ABAP Developer), Mr Vasilis Kakkos (Freelancer - educational field)). The participants expressed their gratitude to the study programme, which offered them the qualifications and skills for a successful professional and often academic career. They mentioned the support they had from the Faculty members and the flexibility to accommodate the requirements of remote learning and mature students, their beneficial relations with the Department and their commitment and availability to offer cooperation and support when needed.

4. Employers and Social Partners: 6 members of the Hellenic Professional community with some links to the University participated. (Dr. Mr Michalis Paraskevas, Member of the Board - Institute of Computer Technology & Press "Diophantus", SEP HOU, Ms Maria Kommata, Deputy Head of the Information Systems Security Department of Dei, Mr Thomas Koukoletsos, Hellenic Military Geographical Service (details withheld for national security reasons, Dr. Mr Spyros Papadakis, Coordinator of the Educational Project of Informatics of Western Greece, SEP HOU, Organizational Coordinator of the Regional Center of Educational Planning of Western Greece, Mr Andreas Tsiliras, Mosaic/Culture & Creativity co-founder, and Mr Pantelis Petrogiannakis, NESSOS Informatics S.A. - Project Manager). The group had positive comments regarding the Department and its students, highlighting the employability of graduates and the respect the Department enjoys by the Industry. They also mentioned the desire to help the Department with its ongoing evolution to the study programme and provide input in shaping it according to market needs as they emerge.

Concluding the day, the EEAP had a closing session with the Vice-Rector/President of the MODIP Professor Mr Efstathios Efstathopoulos, the Dean of the School of Science and Technology Professor Mr. Ioannis Kalavrouziotis, the Study Programme Director Professor Mr Dimitrios Kalles, members of OMEA (Professor Ms Maria Hadjinicolaou, Assistant Prof. Ms Argyro Sgourou, and Associate Prof. Mr Theofanis Orphanoudakis), MODIP representatives (Prof. Ms Vassilia Hatzinikita, Prof. Mr Stylianos Zerefos), and MODIP staff (Ms Evangelia Kaldani, Mr Nikos Karousos (MEAE). During the session the EEAP expressed gratitude for the effort various members of the University invested to make the process productive, informative and efficient and for the online hosting and hospitality. An informal presentation for some key findings were given.

The EEAP was pleased to find that all members of the Department were very willing to collaborate and provide further information as requested. The documentation provided in advance, and the material supplied on the EEAP's request, served as the evidence of the current accreditation report.

Throughout the process, it became obvious to the EEAP that certain evaluation criteria as expressed by HAHE are not applicable to the programme and to the HOU. This is because of the remote nature of the studies and the overall structure of the University. For instance, the

expected facilities of a conventional Study Programme are not needed and thus not available, as such relevant criteria do not apply.

III. Study Programme Profile

The Hellenic Open University was founded in 1992 and currently it has 4 schools and 53 programmes, with a very high percentage of under short-contract Adjunct Teaching Staff (SEP) vs. Teaching Staff Members (DEP) (2,500/41). The University has a community of 50,000 graduates and 30,000 active students.

It differs from other Universities in Greece as it follows the model of Open Universities and offers Distance Education. It is also notable that this is one of the few Universities in Greece where tuition fees are introduced at UGP. This combined with the fact that the majority of the teaching/supervising Faculty is Adjunct Staff (SEP) under short contracts, creates a unique Academic framework with many challenges but also many advantages over more traditional models (for instance the teaching model is elastic as number of SEP can vary based on demands).

The nature of the studies consequently tends to attract mature students, who usually perceive the studies as part of their career progression. To accommodate for that, the University utilises a technical framework fit for remote learning, and additionally certain concepts such as the concept of the Thematic Unit (Θεματική Ενότητα) which is the learning unit of its programmes. Each Thematic Unit contains three semester courses.

The Programme of Computer Science which was the subject of this evaluation is part of the School of Science and Technology under the HOU. It offers a degree which is equivalent in recognition and skills obtained to similar programmes in other Universities in Greece and it is based on 12 Thematic Units (240 ECTS). The average age of the active students is 38 and the average number of active students is approx. 2000, with approx., 175 graduates per year.

It is notable that one of the challenges of the programme and the University is to create and foster a close knitted student community and facilitate the full student experience via continuous interaction of the students with their peers. However, this is a consequence of the remote learning nature of the programme and the University.

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 implements a Quality Assurance policy which is adopted from that of the University's. The strategic aim is the continuous improvement of the programme, often aspired by the ISO 9001 guidelines. The Department's Quality Assurance policy focuses on high level educational outcome based on remote learning, optimal satisfaction of student requirements,

ability to remotely teach a curriculum based on applied innovation, proper structure of the study programme, educational outcome and skills in line with the European and National requirements, quality and effectiveness of teaching outcomes, appropriateness of the skills of the Faculty, promotion of the quality and the quantity of the research outcome of the Faculty, linkage of teaching with research, and demand of the graduate skills in the job market.

As a result, the Department has set objectives and associated measurable Key Performance Indicators (KPIs) which are fully compatible with the objectives of the Programme and the University strategic goals. KPI emphasis is given to:

1. Improvements of the effectiveness of the curriculum
2. Improvement of the recognition of the programme within the National and International stage.
3. Linkage with society and the job market.

Following the KPIs set, the programme defines a number of metrics and establishes for each one target values and monitors those metrics annually. However, there was no evidence of further trend analysis of the measured KPIs and how this leads to the ongoing improvement of the curriculum and the structure and function of the programme.

It is EEAPs opinion that the targets set are not ambitious enough and very often very close the measured value, which defeats the scope of ongoing improvement. Additionally, the Quality Assurance Policy for the School of Sciences and Technology (SThET), which also applies to the Computer Science study programme, contains general statements that are not actionable. It is recommended that QA Policy and the KPI targets are updated so that it represents specific actions (See example in Principle 2).

It is notable and positively commendable that the Hellenic Open University (HOU) was the first University in Greece to establish an Internal Assessment and Education Unit (MEAE) in 1997. However, the new structure from HAHE envisions a University-wide assessment unit (MODIP) and an assessment unit at the academic-unit level (OMEA). In addition, the HOU does not have departments, where the OMEA would be based, and it seems that the School may be a more appropriate level for OMEA at HOU. So, the original MEAE overlaps mostly with the MODIP, but also with OMEA, and causes confusion in the accreditation process but also to the Faculty. It is recommended that the HOU works with HAHE to reconcile these differences and agree on one of the two systems, to avoid confusing the EEAP, as long as the appropriate Quality evaluation criteria are met.

As a result of the conflict between the two systems (MEAE vs. MODIP) EEAP observed that certain processes necessary for the efficient operation of the department (in line with the Quality Policy), although they exist, they are not properly documented and methodically performed. As a result, when they are performed, it is on an ad hoc basis (for instance the process of revisions to the curriculum as analysed further in the next section)

The follow-up report which is required to be submitted by the department within 2 years after this report, should demonstrate how the department is able to achieve results according to the findings of the Accreditation report herein, following the processes and recommendations set in the Guidelines for Accreditation set by HAHE.

The Quality Policy of the University is uploaded on the website and is accessible to all stakeholders. There was a Quality Manual of the University which EEAP understands is also applicable to the programme, however, this manual contains only a small subset of procedures required for the proper function of the department.

Panel Judgement

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

Panel Recommendations

- The department should consider consulting HAHE and HOU to use either the MEAE or the MODIP/OMEA as internal evaluation organisations and compile a Quality Manual containing the list of procedures covering all areas of the Internal Quality Assurance System. The Quality Manual should be communicated to all members of the Faculty. Evidence of that will be required in subsequent Accreditations as per HAHE Guidelines.
- Revise the Quality Assurance Policy and the resulting KPIs to include concrete policies/statements representing the different areas of actions and more realistic and ambitious set of targets for the KPI metrics.

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 Computer Science Study Programme and the Institution follow to a large extent proper procedure for the development and revision of the Undergraduate Programme. This includes not only internal institutional policies, but also the relevant regulatory framework. However, such procedures have not been collected in a single document, such as the Quality Assurance Policy. The Quality Assurance Policy includes general statements about the institutional philosophy, but it lacks specificity to make it useful for strategic or tactical purposes.

The Quality Assurance Policy does not include the concrete steps needed for the approval of new curriculum elements, or modifications of existing curriculum. For instance, from the presentations received from the PLH Study Programme (Computer Science), it is evident that the steps involved are: ODP (Team of Teaching Personnel) → EPS (Study Programme Committee) → Dean (SThET) → DE (Rector's Committee) (→ Ministry of Education). Later, upon request, additional documentation was provided to the Panel, and in one of these additional documents (Διαδικασία Τροποποίησης ΘΕ/ΠΣ) the above process was found explicitly described. This process description needs to be part of the Quality Assurance Policy for the

different kinds of curriculum changes, to avoid questions on how the Quality Assurance is implemented.

The students are routinely asked at the end of every year for their input in the corresponding Thematic Unit (TU), and it appears that about 45% of them respond, which is a satisfactory response rate. The instructors use this input, together with input received from students in personal communications, as well as knowledge from the relevant field in which they (the instructors) are experts, to formulate plans for changes in the curriculum. These changes find their way in the Target Setting document (Στοχοθεσία, Document B6). However, the Target Setting document itself needs revision, for the following reasons.

The Target Setting (Στοχοθεσία, Document B6) was found to have unrealistic target numbers and dates. For instance, in Strategic Target 1 (Improvement of Education Effectiveness), item D.1.1.2 uses the Student Survey satisfaction level to assess the quality of the digital material, with current value of 3.21, which is itself rather marginal (too close to 3). However, the target value for December 31, 2020, was set to 3.22. First, 3.22 looks suspiciously close to the current (unsatisfactory) value. Does this mean that no improvement is needed for a rather marginal performance? Next, the target date is the end of last year (so, it is assumed that the table was composed in 2020). But how can one impact the preference within the same year when the development of the new digital material will probably take year(s) of development, approvals and implementation? There are more such examples in that table. The table needs to be revised to become realistic, and it should also probably include the previous target value, which resulted to the present actual value, to judge any progress.

Regarding input from external stake holders in the labour market, there does not seem to be any (in a systematic way, in any case). This may be due to the fact that the students are mostly older adults and already have employment and may also be due to the fact that the Study Programme is very thin in permanent faculty (DEP) that would be needed to sustain such a connection with Industry. Still, it would be advantageous to constitute an External Industrial Advisory Board, who can meet, e.g., annually, even just with the Study Programme Director, to hear the status and planned changes of the programme and give feedback on these and any other matters. The Advisory Board participants could also act as resources of information for the students, and as links with the Industry for securing summer internships or practical training for the students. They can also give seminar presentations about their Industries and their needs.

The Programme properly considers the student workload according to ECTS, and it appears that the students handle this part well (given any special personal circumstances they have). The students have a significant initial dropout rate, as might be expected from working adults, possibly without prior exposure to a University environment, who may also encounter family challenges or demands from their employment. However, after this initial dropout, the students seem to progress satisfactorily, which is an indication of a prudent design of the Study Programme.

Regarding the level of material, all students expressed high satisfaction, and several of them verified the high quality of their education when they had to apply it in practice. In addition, students with prior degrees in Math and Civil Engineering indicated that the level of the HOU classes were at least as high as the ones they encountered in the traditional Universities.

The linkage of teaching with research is considered reasonable. Depending on the subject matter, it can be part of the Written Homework assignments, which are required during the term of every TU, or, in more advanced form, it can be part of the project in the PLH 40 TU. What the Panel observed with satisfaction during the interviews with current and former students, was that these students being mature adults, expressed strong interest in pursuing investigations of their own around their course studies, and credited the programme with stimulating such interests.

Panel Judgement

Principle 2: Design and Approval of Programmes	
Fully compliant	
Substantially compliant	X
Partially compliant	
Non-compliant	

Panel Recommendations

- Expand the Quality Assurance Policy document to include the concrete steps involved in the review and approval of Curriculum changes, as well as other procedures, by including all parts of a properly defined Quality procedure (for instance frequency, participants, inputs, outputs, references etc.).
- Change the target-setting table (Στοχοθεσία, B6) to reflect realistic targets and timetable.
- Form an External Advisory Board, to meet at regular intervals (recommended annually) with the Director of Studies and other leaders of the Computer Science programme in order to give feedback on the PLH programme and provide assistance for practical training positions.

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

Student-centered learning is a strong point of this Programme (and probably of the whole HOU). Since it is structured as a distance-learning institution, the students are given the highest flexibility in their use of time. Also, considerable thought has been given in structuring the course material to provide satisfactory presentation and training for the students to understand the subject. In addition to the study material, the students can access the existing online Forum to ask for help, communicate directly with the instructor (email, phone call), or participate in the regular live group sessions (OSS) scheduled every 1-2 months. The latter mode of communication has been more restricted during the Pandemic, for obvious reasons.

All students expressed a high degree of satisfaction with the responsiveness of the instructors, and the quality of the received guidance. However, several students expressed the desire of more frequent person-to-person communication with other students, even outside the Pandemic. Such encounters carry a wider bandwidth of sharing of ideas between students taking the same subjects, and may lead to useful intelligence on, e.g., professional subjects. It may be worthwhile to consider using spaces rented for OSS meetings for informal student meetings.

Related to different modes of learning, quite a few students expressed the strong desire for some additional hand-holding, by having available pre-recorded videos/lectures explaining certain subjects. The request was not for recording a public lecture, which was given for other purposes. As we understood it, it was for an instructor to privately record an explanatory lecture on a narrow subject, which seems to give trouble to at least some students. The instructors can determine over time, with the students' feedback, which topics qualify for such videos. Then, the same videos can be offered repeatedly to the students of that Thematic Unit for optional viewing from year to year.

The Study Programme shows to be very sensitive to the learning needs of the students, and it has introduced additional, optional, mid-term exams, especially in the first year of the studies, to help the students assess where they stand. The Programme pays good attention to the students' feedback and considers revision of the teaching material. If it would accelerate the timeliness of revisions, the programme could consider updating and delivering the textbook material in electronic form. But this needs to be discussed with the students, as some of them may feel uncomfortable with this mode of studying. Also, collaboration with similar programmes in Open Universities abroad may make available to the students more frequently updated related material, which could also be translated.

The detailed information for the different practices of the HOU and the Computer Science Programme can be found in the Student Guide (Οδηγός Σπουδών) and other available documents. However, it is felt that an initial orientation of the incoming students, possibly the ones attending PLH 10, would be helpful to give them a picture of an environment that differs from the traditional Universities, and reduce their anxiety and the initial dropout rate. This orientation can be in the form of a recorded lecture posted online for later viewing too. Additionally, the slides from that lecture can be posted also online and serve as a summary information, or "start-up manual", of what the new students will be encountering in the HOU.

All the students expressed a very high level of satisfaction on how they were treated by the Instructors. Most of the students had heard of the availability of the complaint process, but none of them had ever had a need to file a complaint. One of them indicated that there had been an issue once, but it had been quickly resolved at the Instructor level.

The Student Guide gives very detailed descriptions of the examination system and methods for the benefit of both students and instructors. Additionally, the instructors make available to the students examples of tests with detailed answers, to familiarize them with the examination and the grading process. There is detailed guidance to the Instructors regarding grading of any specific exam, as there are several sections within a single TU, taught by different Instructors, and such a guidance is very important to achieve fairness and uniformity in grading. The Panel

felt that the Computer Science Study Programme, and the HOU in general, have achieved a high level of success in these areas.

Panel Judgement

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

Panel Recommendations

- Consider the possibility of informal OSS, where students can meet at the same places as the formal meetings, with optional participation of instructors, and chat face-to-face.
- Record lectures, typically of short duration, explaining specific topics, which the students seem to have difficulty in grasping.
- Offer an introductory orientation lecture to the incoming students, to familiarize them with the processes of the HOU in general, and the Computer Science Programme in particular. Post online the video recording of the lecture, and also post the slides as an informal “start-up manual”.
- Improve the learning materials offered and the established online methods/platform.

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

Admissions to the Hellenic Open University are different to that of the conventional Universities. Prospective applicants are required to fill up an application for admission to HOU, but they are not required to have passed the Panelladikes exams, the minimum requirement is "Apolythrio Leikiou". The students are required to pay fees unless they hold a scholarship.

The progress of the students and the evaluation of their performance in Thematic Units, that include 4-6 assignments, and a final examination. Each Thematic Unit comprises of three courses and each year has 4 Thematic Units except the first and the last year that has 3. Exams are written and take place in all major cities of Greece where student groups are formed. The final exams are conducted in two periods: June (1st), and July (2nd). Students can re-take the exam the following year without paying additional fees.

The Department of Informatics participates in the ERASMUS + and ERASMUS + International in cooperation with European Universities in its area of education. In terms of incoming mobility, it does not seem to be much activity as the HOU has no on Campus teaching. In terms of outgoing mobility about 2 students took this opportunity, which is understandable as most students have full time jobs and cannot go away.

The informatics students have no opportunities to take courses from other Departments of the University. It will be beneficial for the students to be able to take 2-3 courses of their choice that will make their degree balanced and complete. For example, Innovation, Business administration, Economics etc. This will help them to integrate in the working environment.

There is also a summer Lab-based thematic Unit, that is examined live in the lab. Additionally, there is a practical project that can be based on a variety of topics. It is desirable to have projects on topics in collaboration with the industry.

The management of student progression is fully integrated and automated within the University computer systems. Similarly, the course and teaching staff evaluations are all done online, with

a participation rate of 45%, and their analysis is fully automated. They have vigorous procedures to address any problems that may arise from the evaluations.

The processing of information concerning admissions, certification, etc. is automated to a high standard.

Panel Judgement

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

Panel Recommendations

- Offer students the opportunity to take courses from other Departments, by finding a way to integrate them into the Thematic Units.
- Consider making the practical project compulsory.
- The Diploma supplement should include information, not only on students' grades for each thematic unit, but also on the Subjects covered within each Thematic Unit passed.

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

The hiring process for the permanent academic staff is centrally dictated, dominated by the Greek government laws; they use simple, transparent procedures for hiring adequately qualified staff who perceive the importance of education and research. The adjunct professors are chosen from a committee of 3 academics for each Thematic Unit. In total they hire about 146 Adjunct Professors based on a lengthy list of criteria, but the main ones are their suitability in teaching the Thematic Unit.

The permanent and adjunct academic staff shows that they have an appropriate background, and, to a large extent, their research publications are related to teaching subjects.

Each member of the permanent academic staff is allocated a fixed amount of funding from ELKE to be used for research purposes. The Panel considers that the Department had sufficient funding to support conference participation and other academic/research activities. Most teaching staff have made use of these opportunities to enhance and accelerate their research and academic development. The Department has signed a small number of ERASMUS+ agreements, but the teaching staff have not made use of the opportunities.

The Department, on a regular basis, offers sabbaticals to their academic staff, vital for their professional development; Three members of the academic staff made use of this opportunity. Similarly, promotion procedures are followed according to the rules given by the ministry of Education and the staff seems to be happy with the overall handling by the Department.

The adjunct professors are required to offer support to students 32 weeks per year as well as holding small group tutorials of 4 hours 5 times a year. The whole process seems to be well organised, and it runs efficiently. The students seem to be happy with they set up although they

express the wish for some video lecturing. Additionally, the adjunct lecturers are required to take courses on e-learning.

Panel Judgement

Principle 5: Teaching Staff	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

None.

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

The structure of the HOU University is different from the traditional Universities. It is based on a unique long-distance teaching and a learning educational structure appropriate to serve its students. Thus, due to its uniqueness, there are no traditional classrooms for teaching and evaluation. The laboratories operate differently as well. In particular, HOU faculty and instructors send packages with the lab material (text-books, course-notes, hardware components, guide of study, software) to students and instructions to individually perform their lab experiments for a specific period but with a flexible timeframe. The students will contact the instructor/faculty members for assistance, if needed, and send their final reports to instructors for evaluation.

There also certain categories of lab experiments that small groups of students may travel to HOU facilities on predefined timeframes to contact some specific experiments under an instructor/faculty and Technicians supervision;

The distance learning and advising sections are organized as follows. Each faculty/instructor has a section of 25 students to advise/supervise. The instructors/faculty members must offer to their students 5 different period of time (annually) for interaction and advising. Each period has a duration of 4 hours. During that time, the students are advised by a faculty/instructor, who is

or represents the main advisor for a particular course of a thematic unit throughout the academic year. Moreover, the instructors advise students regarding their lab experiments and learning in additional time frames flexible to students.

HOU long distance educational structure does not offer distribution of facilities. Moreover, there are no boarding and dormitories services for students.

As far career counselling, HOU offers such a support through its faculty members and instructors that offer advice on individual basis.

There is no welfare office due to the structure of HOU. Also, there are no main sport/cultural facilities, although the HOU students participate in some sports and cultural events.

All HOU students are informed for the available services via email communication during the admission. These services are accessible for the students via email and/or via regular mail. According to the students' responses, the instructors, the HOU faculty and administration offer relatively quick responses to the students' requests. Some details are available in HOU web site.

HOU, in its current structure and operation, does not require for a very large number of administrative staff. Thus, the existing staff offers a good supporting service to students.

Panel Judgement

Principle 6: Learning, Resources and Student Support	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- The HOU's current IT infrastructure is working at this time. Since IT infrastructure changes in time, HOU has to upgrade it by offering better IT services to long distance learning mode.
- It is considered important that HOU has to organize career fairs in certain time frames for its students by increasing their potential employment.
- It is also important the development of alumni and mechanisms for exchanging ideas, supporting and improving visibility is needed. In addition, student community peer to peer interaction is very important and a forum and space for such interaction is desirable.
- An advisory board is also desirable to connect HOU and students for employment and ideas to be exchanged.
- Finally, a very important issue is the service to students with special needs. There is no provision about it.

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 analysing information and planning follow-up activities.

Study Programme Compliance

HOU has established thematic units for the efficient evaluation of the School of Science & Technology (S&T). It is important to be mentioned here that HOU has established a University-wide Evaluation Unit (M.E.A.E.) that supports and manages the teaching mission of the School for collecting student body data. The MEAE system is also used as a mechanism for internal evaluation only. It evaluates data and procedures collected on annual basis for contributing to the development of policies for efficient management.

In addition, The HOU's School of S&T collect annual reports for evaluating their performance (i.e., the last score was 46.24/100). These annual evaluation reports offer the positive and negative responses to the S&T performance. Thus, the recent evaluation results (in brief) were: (i) teacher's performance (4.24/5), (ii) teaching material (3.37/5), (iii) organizational procedures (3.67/5), (iv) students' performance (6.8/10), (v) administrative services (3.37/5) and (vi) infrastructure (3.63/5). The participation of the students on these evaluation procedures was around 45%.

Based on the documentation provided by HOU, the students and staff surveys are conducted on annual basis. Results are available in several documents (School of Science & Technologies).

There are also several reports that analyse and evaluate the annual results collected and procedures up-graded by S&T and HOU on a regular basis. The School of Science & Technology

uses a variety of software tools to collect data and analyse them for future improvements mentioned above.

The HOU Representatives presented to the Accreditation Panel the data collected from surveys and evaluations in various forms of graphs and tables and provided explanations and comparison. These pieces of information were available to the Accreditation Panel as well.

Panel Judgement

Principle 7: Information Management	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

Although there are significant efforts of supporting HOU graduates, however, it is not clear if there are formal/documented management procedures and policies for developing career paths for the graduates.

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

Information on the University's activities is provided on the university's website (www.eap.gr), although there is no dedicated section on the Programme's activities beyond the study programme. The university site, in general, appears to be updated, and provides useful and easily accessible information on the various programmes -including the one under accreditation- of study and courses although in a rather old-fashioned way.

The Computer Science programme provides brief public information covering most of its content. There is information on the curriculum and syllabus of Thematic Units (TUs), their intended learning outcomes, expected qualifications, as well as the various learning opportunities available to students. However, in some cases there is some confusion in the terminology used. As an example, in the introductory presentation of the TUs, the term "Volume" (ΤΟΜΟΣ) is used in parallel with the term "Subject" (Γνωστικά αντικείμενα) when referring to the key knowledge components of each TU.

Brief information on teaching, learning and assessment procedures are also presented in the programme's website, however, one has to browse the specific attachments of each TU, as well as, the study regulation of the University, to find sufficient information on these procedures.

Study guides are posted on the website, as well as post announcements about the programme. Teaching staff's CVs are available only for the permanent teaching staff of the programme.

The quality assurance policy is available without providing, however, extensive information on the programme's related processes and progress.

All information is provided in the Greek language and is partially available in English. Although web site navigation is easy, the links do not appear to be quite consistent throughout all its sections.

It must be mentioned, however, that due to the nature of the University and the Programme, extensive and detailed information is provided, accessible only to its staff and students, on teaching and learning procedures in the dedicated electronic platforms used throughout all university's programmes.

The University has extensive presence in social media platforms, such as Facebook and LinkedIn, encouraging each community to actively being involved on these and promote its activities to the public.

Panel Judgement

Principle 8: Public Information	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- All information related to Programme's activities and data should be found under its dedicated web content, including the QA processes and data.
- The university's website on the Programme should be improved in terms of structure, consistency and appearance. All information should be provided in both Greek and English.
- The CS unit is encouraged to promote its activities including its presence in social media throughout its website, as well.
- Information on faculty's biographies, as well as, their activities related to the Programme, should be provided in the corresponding website.
- Up-to-date and detailed information regarding the Programme, which is in most cases available in PDF files found throughout the website, may be provided as dynamic content in appropriate sections upon a reasonable restructuring of the site.

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

The Study Programme is well structured and designed, based on the University's standards and methods and other similar Study Programmes on Computer Science internationally. The ongoing monitoring and review of the Programme of study is based on the internal evaluation procedures, which are carried out at the University level, Schools and recently at the Study Programme level, as well. To that end, the very small number of permanent faculty (ΔEP) poses a threat for the future development and sustainability of the Programme, against the quality guidelines posed by HAHE and the need to streamline the existing quality processes to the accreditation expectations.

Teaching staff is actively engaged in the self-assessment of the Programme and has a clear view of the existing procedures and their limitations.

The Study Programme has sufficient quality assurance mechanisms to ensure that teaching is at the required level. Students participate anonymously through an online evaluation form for each Thematic Unit. Evaluation data are collected and processed centrally, and the results are distributed to each Programme for considerations and continuous improvement actions. Students actively participate in the Programme's self-assessment procedure throughout that TU and teaching staff evaluation process. It was found that students do not receive sufficient feedback upon the results of their contribution, probably due to the annual duration of each TU per academic year.

There is evidence, that there exists a continuous and effective collaboration among the different Units and Offices, such as The Internal Evaluation and Training Unit (MEAE), Office of Strategic Planning & Development, The Quality Assurance Unit (MODIP), towards the implementation of

the Internal Quality Assurance System. The annual internal evaluation of each School is completed with the Annual School Assessment Reports, providing extensive aggregated data on curricula and teaching, as well as on the provision of other services offered by the University during an academic year. The existing transparent internal evaluation process enables the sufficient identification of issues, and areas for further improvement, which lead to the establishment of an annual plan for future enhancements and re-assessment of the Study Programme.

The Panel observed lack of engagement of external stakeholders in the annual internal review process.

In the meetings with faculty, staff, students and graduates, there was strong evidence of the existence of a friendly and mutually respectful relationship among them. There were very positive comments regarding the availability, assistance and support that the students enjoy during their studies. This relationship should be further reflected in the Programme's review process.

Panel Judgement

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

Panel Recommendations

- Introduce clear, measurable action plans and set up and fully document processes to assure the periodic evaluation and improvement of the Study Programme.
- Set up and realize formal procedures for eliciting and effectively using input from all stakeholders (faculty, staff, students, external stakeholders).
- Transparently disseminate the data analysis, and any actions taken as a result of previous evaluations to all stakeholders. As an example, information on the evaluation analysis, feedback collected, and actions taken towards the Study Programme, should be communicated to students of TUs at the beginning of a new academic year.
- Engage external stakeholders (such as alumni society, industrial partners and external faculty,) in the form of an External Advisory Board in a periodic monitoring and review process of the Study Programme.

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

This is the first external Accreditation of the Internal Quality System of the Study Programme. Thus, the principle is not relevant to that extent!

Nevertheless, an external evaluation of the School of Science and Technology ("School") took place in October 2013. Its final external evaluation report released in November 2013, introduced many important points for improvement. The School has taken actions towards those points.

The Study Programme has also documented efforts with actions taken upon relevant recommendations from that report. However, there is still work to be done to that end, such as that related to the involvement of external stakeholders, circulation of information and results from the quality processes to all stakeholders, improvement of the communication and interaction channels with graduates, etc.

The Staff are well aware of the importance of the Study Programme accreditation and their role as key Quality Assurance contributors to the continuous improvement of the Study Programme. The current accreditation, which follows the associated national laws and regulations, has benefited from the excellent function and effective interaction among various agencies and committees, including OMEA, MEAE, MODIP and HAHE. Sufficient evidence was provided upon staff's engagement in some of the follow-up actions through the official well established university processes.

Finally, it must be noted, that external stakeholders, such as graduates and industrial partner representatives, met during the accreditation sessions, have expressed their warm willingness to contribute to the Programme review process in various ways, helping enhancing student

learning opportunities, as well as career orientation. Despite the existence of a network of external stakeholders, there is a still lack of significant formal engagement with them in the evolution of the Programme, especially when considering the QA procedures.

Panel Judgement

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

Panel Recommendations

- The Programme must consider the creation of an Advisory Board (mainly external academics, stakeholders and partners from the private and public sector, excluding of course, adjunct teaching staff) to offer advice on the structure and the content of the curriculum.
- Establish formal engagement processes for adjunct teaching staff with documented engagement in the evaluation processes.
- Further encourage and promote the already achieved high level of student participation in the Programme and faculty evaluation, with the provision of feedback to Students on the importance and outcomes of their comments to the Programme.
- Encourage and support Programme graduates for the development of an active alumni and engage them in the internal QA process.
- Consider Programme's evolution alternatives, such as availability of flexible modules, to improve its visibility on international exchange mobility programmes further encouraging internal and external faculty and student participation into them (Erasmus+).

PART C: CONCLUSIONS

I. Features of Good Practice

The Computer Science programme (CS) and HOU have many differentiators from conventional National and International Universities. This is mainly stemmed from the nature of the remote learning study programme, which is combined with the introduction of tuition fees and the fact that the majority of teaching/supervising is performed by adjunct non-permanent Faculty members (SEP). As a result, the programme tends to attract mainly mature students during their mid-course career progression or career change. This unique Academic framework offers many opportunities but also creates various challenges which, sometimes, can be difficult to overcome (for example the minimal peer-to-peer cohesion and interaction between students, the demand for flexibility beyond what is expected in conventional Universities etc.).

It is notable that some of those opportunities are in consideration to be pursued by the Computer Science programme (such as short-term courses, varied workforce to fit the changing demands of the student population etc.)

In the year the evaluation was undertaken, because of the COVID-19 outbreak, most Universities globally had to adopt remote teaching/learning models as a way to deliver their study programmes. Perhaps, some remote teaching elements will remain, thus the working practices of the programme may become the model for other similar Informatics courses to follow.

The EEAP noted the high level of satisfaction amongst students and graduates, and the very positive reputation the HOU and the Computer Science programme enjoys in society and job market.

We believe the ministry of education should encourage and support the vision of the HOU and its programmes at all possible costs.

II. Areas of Weakness

The Programme's established operating framework with a very small percentage of permanent personnel (DEP, admin) within the Faculty population, and the heavy reliance to the University operations for its function, restrict its ability to create a strong internal and external identity, and be able to promote better the very unique position of the Computer Science programme amongst other departments. This is evident not only in various internal operations (as mentioned in many sections above), but also with the inability of the programme to engage properly and methodically with external stakeholders for the benefit of all.

III. Recommendations for Follow-up Actions

Improve the Quality Management System (QMS) in place:

The CS Programme's QMS needs to be improved. Based on random sampling, it became obvious that there are processes in place, but those processes are not controlled by a QMS, and they are performed in an ad-hoc and often unstructured method. It is unclear to the stakeholders which processes are controlled by the Programme vs. the University and MEAE vs. MODIP. The CS Programme should consider consulting HAHE and HOU to use either the MEAE or the MODIP/OMEA to develop a proper QMS structure. As part of that, a Quality Manual should be compiled, containing the list of procedures covering all areas of the Internal Quality Assurance System for the CS Programme. The Quality Manual should as minimum contain all procedures that are important for the proper operation of the Department and the scope of continuous improvement. Those procedures should have complete structures (for example, frequency, actors, inputs, steps, outputs etc.) The QMS structure and the Quality Manual should be communicated to all members of the Faculty. Evidence of that will be required in subsequent Accreditations as per HAHE Guidelines.

Moreover, the CS study programme should focus more on continuous improvement (as per strategic vision). As such, not only metrics should be defined (in terms of KPIs or evaluation data), but those metrics should target realistic continuous improvement. Furthermore, there should be an ongoing and periodic analysis of those numbers leading to clear and measurable actionable tasks, a process which should be well documented.

Modernise the technical framework which is used to deliver remote learning including the provided materials:

The CS study programme should consider establishing a committee to periodically assess and modernize the provided materials and the remoting learning technical framework, in line with the availability of modern technologies (i.e., cloud, VMs etc.), and other remote teaching/learning paradigms (other Open Universities, services like Coursera etc.). In this process, students and graduates should be involved, as they represent the target audience. There was ample evidence from interviewing students and graduates (and also reviewing the external evaluation report) that this work is needed. Ideally the process should be controlled by the QMS as it is critical for the correct operations of the study programme.

Significantly improve the outward-facing operations of the CS study programme:

The CS programme should consider increasing its outward-facing profile. Although this was outlined in the external review, no significant or methodical actions were taken. In the report herein, EEAP suggested a number of actions in the various Principles of Accreditation. In summary:

- Establish an External Advisory Board (EAB) and use that to setup up formal procedures to engage with external stakeholders (such as alumni society, industrial partners and external

faculty, excluding of course, adjunct teaching staff). The EAB should periodically (proposed annually) monitor, review and advice on the study programme evolution and in general all the departmental operation.

- Establish an Alumni group and encourage and support Programme graduates to actively participate. Furthermore, use this group as a mechanism to obtain feedback for the career progression and employability of graduates.
- Update and modernise the CS website in terms of structure, consistency, appearance and content. All information should be provided in both Greek and English. Presence on social media is also advisable.
- Encourage wider and cross disciplinary academic collaboration by encouraging internal and external faculty collaborations and mobility and by offering students the opportunity to take courses from other programmes.
- Organize career fairs in certain time frames for students by increasing their potential employment and in general market awareness.
- Create innovative mechanism to enhance the peer-to-peer interactions between students and create the student community and student life even within the constraints of an Open University.

IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are: **3, 4, 5, 6, 7, and 8.**

The Principles where substantial compliance has been achieved are: **1, 2, 9, and 10.**

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. Dr Haralambos Hatzakis (Chair),**
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- 2. Prof. Nikolaos Bourbakis,**
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- 3. Prof. Costas Iliopoulos,**
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