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ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΣΤΗΝ ΑΝΩΤΑΤΗ ΕΚΠΑΙΔΕΥΣΗ

HELLENIC REPUBLIC
HQA
HELLENIC QUALITY ASSURANCE
AND ACCREDITATION AGENCY

Accreditation Report for the Undergraduate Study Programme of:

Informatics

Institution: Athens University of Economics and Business

Date: June 2019

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Επιχειρησιακό Πρόγραμμα
Ανάπτυξη Ανθρώπινου Δυναμικού,
Εκπαίδευση και Διά Βίου Μάθηση
Με τη συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης



Report of the Panel appointed by the HQA to undertake the review of the Undergraduate Study Programme of **Informatics** of the **Athens University of Economics and Business** for the purposes of granting accreditation

List of Main Abbreviations used in this report:

Athens University of Economics and Business (AUEB)
Hellenic Quality Assurance and Accreditation Agency (HQA/ADIP)
Accreditation Panel (AP)
Quality Assurance Unit (QAU/ MODIP)
Evaluation Groups (IEGs/OMEA)
Key Performance Indicators (KPIs)
Higher Educational Institutions (HEIs)
Support Teaching Staff (EDIP)
Specialist Technical Staff (ETEP)
European Credit Transfer and Accumulation System (ECTS)

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PART A: BACKGROUND AND CONTEXT OF THE REVIEW

I. The Accreditation Panel

The Panel responsible for the Accreditation Review of the Undergraduate Study Programme of the Higher Education Institution named: Athens University of Economics and Business comprised the following five (5) members, drawn from the HQA Register, in accordance with the Law 4009/2011:

- 1. Dr Angelos Stefanidis (Chair)**
Bournemouth University, UK
- 2. Dr Paraskevas Dalianis**
UniSystems S.A., Quest Group, Athens, Greece
- 3. Prof Georgios Angelos Papadopoulos**
University of Cyprus, Nicosia, Cyprus
- 4. Prof Christos Politis**
Kingston University London, UK
- 5. Prof Sotirios Skevoulis**
Pace University, New York City, New York, USA

II. Review Procedure and Documentation

The Accreditation Panel (AP) attended a meeting in the Hellenic Quality Assurance & Accreditation Agency (HQA) premises in Athens, on Tuesday 18 June 2019 at 12:00, at which staff of the HQA explained the Accreditation Procedure, and the role and tasks of the AP members (HQA orientation meeting). The AP members met privately afterwards to discuss their plans regarding the initial set of meetings later that day and their overall thoughts in relation to the accreditation event.

The first visit to the Department of Informatics of the Athens University of Economics and Business (AUEB) took place on Tuesday 18 June 2019 at 15:00. The visit lasted until approximately 19.00.

At the welcome meeting, the AP met the Vice-Rector and President of the Quality Assurance Unit (MODIP), Professor Dimitrios Bourantonis, Professor George D. Stamoulis, Dean of the School of Information Sciences and Technology, and the Head of the Department of Informatics, Professor Nikolaos Malevris. Initially, Professor Bourantonis welcomed the AP on behalf of AUEB and gave a broad overview of the history and current developments of the University. He continued by informing the AP about the Quality Assurance procedures of the institution and highlighted the relevant good Quality Assurance practices which are present in the Department of Informatics. Professor Bourantonis concluded his presentation by emphasising AUEB's mission to be the Higher Education Institution (HEI) known for the highest Quality Assurance standards in Greece.

Professor Nikolaos Malevris, in his Head of Department capacity, gave a presentation of the history of the Department and its continued growth, highlighting some of the achievements which have given it a strong reputation nationally. Subsequently, he offered an overview of the Informatic study programme, its aims and objectives, staffing and student numbers, along with information regarding the programme progression and completion statistics, and the preparation of the students for the labour market.

Later on Tuesday 18 June 2019 and during Wednesday 19 June 2019, the AP had meetings with the following groups:

1. MODIP representatives Dimitris Bourantonis, Professor, Deputy Rector for Academic Affairs, President of MODIP, Georgios Kouretas, Professor, (MODIP representative), Klaus Soderquist, Associate Professor, (MODIP representative), Stavros Toumpis, Assistant Professor, (MODIP representative), Popi Kainou (MODIP staff); and the Evaluation Group (OMEA) representatives Panagiotis Katerinis, Professor (OMEA representative), Ioannis Androutsopoulos, Associate Professor, (OMEA representative), Paraskevas Vassalos, Assistant Professor, (OMEA representative), and Christos Sakellariou, Secretary (OMEA representative). The MODIP Quality Assurance team explained the Department's overall evaluation processes and the way in which it is supported and coordinated by the OMEA (Internal Evaluation Committee of Department), and answered a series of questions from the AP, providing supplementary information on a number of topics.
2. Members of the teaching staff George D. Stamoulis, Professor, Dean of the School of Information Sciences and Technology, Theodoros Apostolopoulos, Professor, Panos Constantopoulos, Professor, Iordanis Koutsopoulos, Associate Professor, Yannis Kotidis, Associate Professor, Vana Kalogeraki, Associate Professor, George Xylomenos, Associate Professor, Deputy Rector for Financial Planning & Development, Professor. As part of the meeting with this group, the AP had the opportunity to discuss a number of issues, including staff professional development and career advancement, teaching and research workloads, staff mobility, and funding opportunities. Additionally, there was a detailed discussion around the principles of student-centred teaching and learning, the way in which academic staff link teaching and research, and the structure and specialisations of the study programme.

3. Undergraduate students Alexandros Ventouras, Andriani Gkouma, Alexandra Karavavieri, Vasilios Karatzas, Vasilios Konstantinou, Anastasios Lepipas, Georgios Moschovis, Anastasios Mpenos, Alexandros Xenos, Eleftherios Charteros. As part of this particularly important meeting, the AP asked students about their satisfaction with the Department and the programme of study, their involvement in feedback and evaluation processes, their student identity and their perception of their study programme from an external perspective, and the opportunities afforded to them to actively participating in research activities. Overall, the students offered a very positive opinion about their relationship with the members of the teaching staff which they consider an integral part of their overall academic success. They also expressed their general content with their overall learning and teaching experience.
4. Meeting with graduates Spiros Gradikiotis, Ilias Gkagkas, Eleftherios Dritsas, Serafim Karapatis, Vasilios Koutsikos, Georgios Louverdis, Iosif Sakos, Georgios Tsimos. This group offered a positive overview of their past experience and confirmed that their successful professional development and career opportunities benefited greatly from their time in the Department and the study of the Informatics programme.
5. Employers and Social Partners Apostolos Theodoropoulos (OPTIMUM), Ioannis Nikolaidis (OMILIA), Aggeliki Psimarnou (OMILIA), Katsaros Konstantinos (INTRACOM), George Kyriakopoulos (RetailLink/ENTERSOFT), Panagiotis Papagiannakopoulos (ERNST & YOUNG), Siougle Efrosini (Hellenic Data Protection Authority), Stathis Panagiotopoulos (General Secretariat of Information Systems, Ministry of Finance). The group was positive about the Department and its students, highlighting the strong employability skills of the students.
6. Final meeting with OMEA and MODIP representatives Dimitris Bourantonis, Professor, Deputy Rector for Academic Affairs, President of MODIP, Georgios Kouretas, Professor (MODIP representative), Klaus Soderquist, Associate Professor (MODIP representative), Stavros Toumpis, Assistant Professor (MODIP representative), Panagiotis Katerinis, Professor (OMEA representative), Ioannis Androutsopoulos, Associate Professor (OMEA representative), Paraskevas Vassalos, Assistant Professor (OMEA representative), Christos Sakellariou, Secretary (OMEA representative), Popi Kainou (MODIP staff). During this meeting the AP asked for some minor additional information and provided some overall feedback, outlining the overarching findings of the accreditation visit.

During the early afternoon of Wednesday 19 June 2019, the AP had the opportunity to visit the main facilities of AUEB, part of which are available to the Department of Informatics and are used to support its students. The visit was organised by the Head of Department Professor Nikolaos Malevris, and it was attended by Professor Dimitrios Bourantonis and Professor George D. Stamoulis, along with a number of other academic staff. During the visit, the AP met with members of the Support Teaching Staff (EDIP): Kalergis Christos, Kyriakopoulou Antonia, Brinia Vasiliki, Papakonstantinopoulou Katia, Androutsos Thanasis, Kapetis Chrysostomos, Kefala Anna, Spiliopoulos Spilios; and Specialist Technical Staff (ETEP): Pantouvanos Panagiotis.

The AP is grateful to the entire team for the very helpful and informative facilities tour, and the overall positive atmosphere in which the visit was conducted. Everyone who interacted with the AP was found to be very collaborative and supportive. The AP was provided with further information every time it was requested.

III. Study Programme Profile

The Department of Informatics, within AUEB, was established in 1989 and has since become one of the most prominent computer science departments in Greece. Its main academic provision focuses on a comprehensive four-year Bachelor's degree programme which spans a wide spectrum of theoretical and applied computing subjects.

The Department has a particularly employability-centric approach which is reinforced by the strong relationships it maintains with business and industry. These relationships shape the graduate level attributes which ultimately make Informatics graduates highly sought after, both by employers and industry, but also prominent international universities offering postgraduate opportunities.

Students on the Informatics study programme are subjected to a wide variety of assessment methods which incorporate practical assignments and lab-based activities. By collaborating closely with industry, the Department ensures the development of practical skills and an analytical and conceptual problem-solving approach for its students, designed to address the complex problems normally encountered in the competitive IT industrial and business world of Informatics.

Apart from the undergraduate programme, the Department also awards academic qualifications at higher levels, namely Master's and Doctoral degrees. The undergraduate programme itself consists of six specialisation areas which cover the breadth of computer science. Informatics students are able to take courses from the management and economics programmes which exist within AUEB.

The Informatics programme is designed as a four year degree and is subdivided into eight semesters. Each semester comprises thirteen teaching weeks, followed by a period of assessment. The academic calendar, which encompasses all the activities of the Department, is published annually by AUEB.

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.

lity 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;*
- a) *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

Following careful scrutiny of the study programme and the extensive discussions with both students and staff, it is the judgment of the AP that the Department's curriculum is suitable in terms of its academic content, is comparable to similar Greek and international programmes, and it meets international academic standards.

The Internal Evaluation Committee (OMEA) is responsible, in collaboration with the University's Quality Assurance Unit (MODIP), for overseeing the quality assurance processes of the Department and for evaluating the effectiveness of the entire academic provision. The Department's general assembly maintains overall responsibility for reviewing the study programme in its entirety and ensuring its adherence to the institutional Quality Assurance standards. The annual review process undertaken by the general assembly, guarantees the thorough and continuous improvement of the

academic provision, and research output of the Department. The Department has published a comprehensive list of Key Performance Indicators (KPIs) which are being monitored and updated regularly in order to ensure that they align with the wider institutional KPIs.

The study programme receives student scrutiny at the end of each semester in the form of student evaluation questionnaires for each of the courses. The questionnaires are administered electronically, offering flexible access to students, in the hope that an ever-increasing number of them will engage with what is seen as one of the pillars of Quality Assurance. During the meeting with the students, it became apparent that the Department actively promotes their involvement in the evaluation process of the teaching, and proactively discusses the feedback collected and the resulting action plans.

Finally, staff are research active and seek to incorporate their research into their teaching, to the extent of publishing papers with students (co-creation). This is seen as further evidence of supporting the students in their pursuit to acquire as many relevant skills as possible which would enable them to secure good graduate employment positions. In this respect, the AP was presented with evidence which suggests that there is a strong demand for the Department's graduates, despite the economic crisis affecting the country, as observed during the meeting with the stakeholders.

Panel judgement

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

Panel Recommendations

Ensure that all relevant policy documents pertaining to the Department are always available and easily accessible.

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 structure and content of the Informatics study programme has been designed, and is periodically reviewed, according to strict AUEB Quality Assurance guidelines, whilst taking into consideration the Department's teaching and research priorities. From an external standpoint, the study programme adheres to international curriculum guidelines, as stipulated by various Professional Bodies [Association for Computer Machinery, British Computer Society, Institute of Electrical and Electronics Engineers]. It also reflects the structure of comparable Informatics study programmes found in other 'competitor' Greek universities.

The study programme consists of 240 European Credit Transfer and Accumulation System (ECTS) credits, of which 152 credits must be obtained from the 22 compulsory core courses that all students must take. The remaining 88 ECTS credits, are obtained by completing a minimum of 10 specialisation courses, which come under at least 2 out of the 6 focus areas or modules («κύκλοι»), currently on offer. As part of a drive to enrich the Informatics curriculum, it is also possible for Informatics students to take elective courses offered by other study programmes within the Department, or even from other disciplines within AUEB. Among the electives offered, are the set of courses which lead to the Pedagogical and Teaching Certificate. This teacher-training certification is provisioned centrally by AUEB, and it is coordinated by the Department of Informatics.

The aforementioned information regarding the study programme, is captured in the official Student Guide which is offered in Greek and English. The AP noted that it would be helpful to see additional

information regarding the anticipated workload associated with certain courses, such as the Senior Thesis (“πτυχιακή εργασία”) which is a non-compulsory course. Interestingly, a number of stakeholders, and in particular the students, expressed the view that the Senior Thesis carries a higher level of difficulty than all the other courses with the same number of ECTS credits.

The Department has a well-defined process in place to periodically evaluate and update the content of its study programme, in order to reflect the continuous advancements in the field of computer science. This process involves the annual review and recommendations for proposed changes/additions by the Department’s undergraduate studies committee, and the subsequent consideration of those by the Department’s general assembly. This particular approach has already been used successfully to perform several study programme revisions in the past.

Paid internship (“πρακτική άσκηση”) is also offered as an elective course, linking students with potential future employers. It became evident to the AP that there is significant student interest in paid internships and that the Department promotes them widely. A similar realisation was made with reference to student participation to ERASMUS+ programme.

The Department recently established (March 2019) an External Advisory Committee which is expected to contribute to the existing review and continuous evolution of the study programme. It is expected that this approach will further facilitate the contribution external stakeholders make to strengthening of the study programme. Thus far, study programme changes have been mainly driven by faculty, underpinned by the outcomes of relevant internal reviews, course evaluations by the students, and the wider developments in the computer science field at national and international levels.

Finally, it is worth noting that the external stakeholders praised the high quality of the Department’s graduates. External stakeholders further encourage the students to attend seminars organised by the Department and also engage with similar events externally to continue boosting their skills.

Panel judgement

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

Panel Recommendations

1. The elective status of the Senior Thesis could be reviewed by reflecting on the number of ECTS credits attributed to it.
2. The Department is encouraged to increase its participation to external industry events, which would lead to the further enhancement of its public profile and the profile of its students as a result of the increased interaction with the public and private sectors.

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 AP noted full compliance with this principle. In terms of the study programme, the students have the flexibility to choose from a variety of courses after their second year of study. The combination of compulsory and elective courses forms the basis for the development of a number of specialisation areas ("cycles"); students are given the option to specialise in two of these cycles.

Depending on the nature of the course, assessments are administered in different ways and are presented in different formats, including written exams, take home assignments of a theoretical nature, and practical lab assignments. E-class is the universal virtual learning environment endorsed by all students, which provides access to all learning materials, including assessments. Additionally, it offers flexible communication channels between teaching staff and students by supporting messaging

and chat rooms. Finally, the system supports general information dissemination such as the pushing out of announcements.

Teaching staff receive student feedback collected by student questionnaires. Despite the relatively low participation, concerted efforts are being made to increase the number of students taking part. The meeting with the students confirmed to the AP that the students are generally happy with the study programme, and that it meets their expectations well.

Additionally, the students appeared to be well-informed about their rights and obligations. Particularly, the AP felt reassured by the confidence with which the students described how they would deal with a 'difficult situation'. Further discussions with faculty reinforced the same message of close collaboration and mutual trust between students and staff.

Panel judgement

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

Panel Recommendations

1. Additional ways should be sought to increase the percentage of students who complete the student feedback questionnaires.
2. The provision of the Senior Thesis could be further formalised to ensure that more students are encouraged to engage with it. Currently, there seems to be too much reliance on ad-hoc initiatives which are not always known by all students.
3. The overall information on the departmental website for incoming ERASMUS+ students should be enhanced to ensure potential applicants are well-informed about the opportunities which exist within the Department.

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 Department has developed a comprehensive induction programme to support new students transitioning from high school to the demands of university academic life. Key information which underpins the orientation of new students during their first few weeks at AUEB, is available on the university's website and is further distributed through various social media channels. Students commented on how useful and accessible such information is, and how it helps them gain a useful insight into their study programme, the Department, and the support services of the institution. The student guide provides a detailed description of the courses offered, including information on learning outcomes, syllabi, bibliography and assessment strategies.

As part of their studies, students have the option to undertake a Senior Thesis and/or a paid internship in industry (these two courses are not mutually exclusive). Furthermore, students are able to participate in the ERASMUS+ programme by spending one or two semesters at an overseas institution. Currently, approximately 5% of the total undergraduate student population utilises this opportunity on an annual basis.

Part of a renewed effort to increase the support to students throughout their studies, is based on the role of the Academic Advisor. Although it is not an entirely new, the concept of the Academic Advisor was recently reintroduced by the Department, following a period of reflection, during which certain changes were made to the operational nature of the role. There is much interest to see these changes successfully implemented in the future. The role is designed to provide both academic and pastoral support.

The Department benefits from a number of scholarship programmes, some of which are internal, while others receive external funding from the State Scholarship Foundation (IKY). The promotion of scholarship opportunities is evident in the Department's evaluation report and became clear during the AP's meetings with various groups. The Department is proactive in trying to promote funding opportunities, such as ERASMUS+ programmes, and dedicates reasonable resources in that respect.

Panel judgement

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

Panel Recommendations

1. The role of the Academic Advisor needs to be evaluated in the near future to ensure that its reintroduction as a significant pillar of student support is justified. It remains unclear as to how effective it will be due to its recent reintroduction.
2. Similar to the point above, the recent establishment of the External (Industrial) Advisory Board is seen as a significant step forward whose effectiveness should be monitored and evaluated in the near future.

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 Department of Informatics is composed of 28 faculty and 7 EDIP staff. The legal framework for academic staff recruitment is set by the State. The Department offers a number of opportunities for the professional development of its faculty. There is a rather generous policy for two (all reasonable expenses paid) conference trips per academic year, additional funding (approximately €3,500) from the Special Research Account, administered by the Hellenic Centre for Investment (ELKE), and some 'seed' money top-sliced from the surplus of the graduate tuition revenue. The professional development budget is adjusted regularly to reflect the financial and budgetary constraints of AUEB, which are ultimately determined by the State.

Currently, ERASMUS and sabbatical arrangements provide the primary means for faculty mobility. As a policy, the Department offers 1 semester of sabbatical leave every 3 years. Staff are encouraged to participate in the process of defining the research strategy and future research direction of the Department. As part of this approach, every faculty member has joined one of the 5 Research Labs which are presently co-located to maximise cross-disciplinary collaborative opportunities.

The AP noted the significant efforts of the faculty to bring quality research into the undergraduate study programme. Students are encouraged to get involved with and participate in research projects which often lead to joint publications. The AP discussed the teaching contact time (teaching load) with the faculty and established the average to be approximately 8 hours per week. There was consensus among faculty members that their teaching commitments are reasonable and, hence, allow them sufficient time to pursue their research interests. Encouragingly, there was unanimous praise from the students regarding staff availability which goes well beyond the advertised office hours for each staff. Students also expressed their high satisfaction with the responsiveness of member of staff when using electronic means (email, etc.).

Panel judgement

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

Panel Recommendations

The AP recommends that the Department continues to evaluate its staff recruitment strategy despite any obvious recruitment constraints. In doing so, it is suggested that recruitment priorities take into account future directions in relation to research, the introduction of new technologies, and future curriculum design.

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 AP noted the high quality and adequate number of facilities which are dedicated to supporting the study programme and its students. Teaching and research equipment in the classrooms and laboratories is of good quality. All lecture rooms and labs are equipped with Internet and audio-visual facilities. Auxiliary facilities are also available and accessible to students as and when they are needed. Students are well informed of the different support services available, confidently expressed that they have good access to them. To their credit, the Department and AUEB make good use of the research funding they receive by equipping the labs to a very high standard. Despite the obvious space restrictions which affect virtually all campuses based in the centre of large capital cities, AUEB does well to support the provision of some additional facilities for sports, cultural, volunteering, and other social activities for students.

The EDIP and ETEP staff ratio is currently at a good level and should be maintained in the future too. These support staff deserve praise and commendation for their efforts to maintain the labs at a very high standard. Given how well they are qualified, the Department should always ensure that their services are utilised for the purpose of enhancing the teaching and research activities of the staff and students.

Finally, the Department offers opportunities for student exchange programmes (e.g., ERASMUS+) that encourage mobility, networking and the acquisition of new knowledge and skills.

Panel judgement

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

Panel Recommendations

1. The Department, working closely with the University authorities, should maintain the generous levels of infrastructure available, and ensure the continuous upkeep of the facilities which are very much enjoyed by all the students and staff.
2. The Department should consider the enhancement of extracurricular activities wherever possible.

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 of Informatics maintains the overall responsibility for overseeing the continuous improvement of its academic provision, research outputs, and the high-performance standards of its students. The Department also ensures the efficient operation of the relevant academic support services and is guided strongly by the Quality Assurance guidelines stipulated by ADIP. As such, the Department closely adheres to the institutional principles which govern the collection of data regarding students, teaching staff, course structures, annual monitoring, assessments, progression, and completion rates.

AUEB provides the necessary IT infrastructure which supports the collection of institutional data. External reporting includes the publishing of annual reports, many of which are posted on the institution's website for public access. Similarly, internal data manipulation and reporting supports the operational work of the institution. One such prominent example is the quantitative and qualitative indicators produced by the analysis of the student feedback data, which provide the basis for the biannual development of an annual action plan.

Panel judgement

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

Panel Recommendations

None

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

The departmental website provides the main channel of communication for both students and staff of the Department, as well as the outside world. The website is well structured and is offered both in Greek and English. The information presented is accurate and consistent across both sections. The content of the website is broken down into a number of sections which cover educational, administrative, and social matters, with all key information being present. The navigation between the different parts of the site is easy; basic web usability principles are adhered to. The content appears to be updated regularly. It is understood from the interview with the students that the teaching material is available on the signed-in part of AUEB's website, which hosts the e-class virtual learning tool.

Panel judgement

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

Panel Recommendations

1. The website could feature more pertinent information for incoming ERSAMUS+ students. For instance, it should be easy to find courses offered in English per semester.
2. The PDF version of the Study Guide is comprehensive, but its contents should also be available as a 'hypertext' to allow selective access.

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 Department is deemed to be fully compliant in this area. The review procedures for the evaluation and improvement of the study programme and the integration of the latest research into the teaching, are found to be very strong. Apart from successfully monitoring the learning attainment and teaching goals, there is strong evidence of engagement with external stakeholders. Internally, student expectations and needs are seen as uncompromisable targets, alongside the targets which support staff development opportunities, workload balancing, and the overall welfare of staff.

Panel judgement

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

Panel Recommendations

The Department is encouraged to continue the good practice of auditing and reviewing its study programmes on a regular basis by applying the strong Quality Assurance processes which are currently in place. It is also recommended that the involvement of the external stakeholder groups is fully maximised.

Principle 10: Regular External Evaluation of Undergraduate Programmes

PROGRAMMES SHOULD REGULARLY UNDERGO EVALUATION BY COMMITTEES OF EXTERNAL EXPERTS SET BY HQA, AIMING AT ACCREDITATION. THE TERM OF VALIDITY OF THE ACCREDITATION IS DETERMINED BY HQA.

HQA is responsible for administrating the programme accreditation process which is realised as an external evaluation procedure, and implemented by a committee of independent experts. HQA 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 accreditation exercise currently taking place is the first such exercise for the Department and its Informatics study programme. Previously, the Department had undergone an External Evaluation in March 2012. A large percentage (approximately 90%) of the recommendations made by the External Evaluation Committee at the time, were taken into account and have since been incorporated into the current version of the study programme, as documented in the Evaluation Report, Part B, Action Plan (Table 1).

The AP had extensive discussions with the stakeholder group who confirmed their active participation in the process of curriculum revisions, and their close collaboration with the Department head and faculty members. The Department is seen as proactively seeking advice and feedback from its extensive alumni and social partners network, in its efforts to fortify the quality and future direction of the study programme.

Staff are aware of the importance of the study programme accreditation and their role as key Quality Assurance contributors to the continuous improvement of the Department.

Panel judgement

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

Panel Recommendations

The AP recommends considering the development of an annual Staff Satisfaction Survey, similar to the one carried out by students, to provide a further opportunity to staff for express their views and provide constructive feedback regarding improvements to the study programme and the Department itself.

PART C: CONCLUSIONS

I. Features of Good Practice

- There is strong evidence of a deep mutual respect between staff and students. Staff are very generous with their time, supporting the students with both academic and pastoral matters.
- The Informatics study programme features strong academic content. It is of comparable quality to local and international programmes. It is designed to engage and challenge students, and to equip them with strong employability skills.
- The Department and its staff are committed to supporting their students and to the principles of student-centred learning and teaching.
- The Department has inherited a set of very robust institutional Quality Assurance set of processes which are fully utilised for the benefit of its students.
- The Department has paid careful attention to the outcomes of the last evaluation and to its credit has implemented 90% of the recommendations it received at the time.
- There is strong research culture in the Department which is seen as an integral part of the identity of the study programme.
- The leadership team of the Department is proactive, inclusive, responsive, and caring.
- The teaching and research facilities are very good, with renovated large classrooms and lecture halls, well-equipped and well-managed labs.

II. Areas of Weakness

The AP could not find any significant areas of weakness in the study programme or the overall Quality Assurance process. Funding, resources, and the wider legal framework which governs higher education remain an issue for the entire sector.

III. Recommendations for Follow-up Actions

- The Department is encouraged to increase its external industry links, which would lead to the further enhancement of its public profile and the profile of its students as a result of the increased interaction with external stakeholders.
- The effectiveness of the Academic Advisor role needs to be evaluated in the near future to ensure that its reintroduction as a significant pillar of student support is justified.
- The recent establishment of the External (Industrial) Advisory Board is seen as a significant step forward whose effectiveness should be monitored and evaluated in the near future.
- Ensure that all relevant policy documents pertaining to the Department are always available and easily accessible.
- The elective status of the Senior Thesis should be reviewed in relation to its ECTS credits.
- Students should be further encouraged to ensure the student feedback questionnaire participation continues to grow.
- The information available to potential ERASMUS+ students should be more comprehensive on the departmental website.

IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are:

Principle 1: Academic Unit Policy for Quality Assurance

Principle 2: Design and Approval of Programs

Principle 3: Student – centred Learning, Teaching and Assessment

Principle 5: Teaching Staff

Principle 6: Learning Resources and Student Support

Principle 7: Information Management Principle

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

Principle 10: Regular External Evaluation of Undergraduate Programmes

The Principles where substantial compliance has been achieved are:

Principle 4: Student Admission, Progression, Recognition and Certification

Principle 8: Public Information

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 Accreditation Panel for the Undergraduate Programme
Informatics of the Athens University of Economics and Business**

Name and Surname

Signature

- **Assoc. Prof. Angelos Stefanidis (Chair)**, Bournemouth University, Poole, United Kingdom
- **Prof. Georgios Angelos Papadopoulos**, University of Cyprus, Nicosia, Cyprus
- **Prof. Christos Politis**, Kingston University London, London, United Kingdom
- **Prof. Sotirios Skevoulis**, Pace University, New York City, New York, USA
- **Dr Paraskevas Dalianis**, UniSystems S.A., Quest Group, Athens, Greece