ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
HELLENIC REPUBLIC

Accreditation Report
for the Undergraduate Study Programme
(Integrated Master) of:

Food Science & Human Nutrition

Institution: Agricultural University of Athens
Date: 12 June 2021

Report of the Panel appointed by the HAHE to undertake the review of the Undergraduate Study Programme (Integrated Master) of **Food Science & Human Nutrition** of the **Agricultural University of Athens** for the purposes of granting accreditation (Integrated Master)

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PART A: BACKGROUND AND CONTEXT OF THE REVIEW

I. The External Evaluation & Accreditation Panel

The Panel responsible for the Accreditation Review of the Undergraduate Study Programme (Integrated Master) of **Food Science & Human Nutrition** of the **Agricultural University of Athens** comprised of the following five (5) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

1. **Associate Prof. George Manganaris (Chair)**
   Cyprus University of Technology, Lemesos, Cyprus

2. **Prof. Ioannis Tzanetakis**
   University of Arkansas, Arkansas, USA

3. **Prof. Themis Michailides**
   University of California, Davis, USA

4. **Dr. Demetrios Kazantzis**
   Del's Lemonade and Refreshments Inc, USA

5. **Mr. Lukianos Kontelas**
   Representative of the Geotechnical Chamber of Greece, Greece

II.   Review Procedure and Documentation

Because of the COVID-19 pandemic, the **Hellenic Authority for Higher Education (HAHE)**, implemented an online process for the accreditation review of the **undergraduate study programme (UGP)** of the **Department of Food Science & Human Nutrition (FSHN)** of the **Agricultural University of Athens (AUA)**. Meetings and briefings were conducted efficiently and always within the allocated time frame using Zoom®. The **External Evaluation & Accreditation Panel (EEAP)** comprised of George Manganaris (Chair), Ioannis Tzanetakis, Themis Michailides, Demetrios Kazantzis and Loukianos Kontelas. An online accreditation can never replace on-site visits as the lack of face-to-face communications and physical presence at the premises of FSHN did not allow the EEAP to establish a full understanding of the Departmental infrastructure and evaluate the academic environment.

Before the online meetings, the EEAP received the review timeframe with Zoom links, the FSHN Accreditation Proposal and other relevant material. EEAP members discussed strategy and items to be considered during the review on Sunday June 6th and the Chair allocated tasks for each panel member. Additional documentation and presentations were requested by EEAP and provided promptly by the Department.

The review was initiated in the afternoon of Tuesday, June 8th 2021 with the inaugural meeting among EEAP, the Rector of AUA Professor Kintzios and the FSHN Head Professor Drosinos. Prof. Kintzios gave a comprehensive presentation of the profile of AUA as a whole. Prof. Drosinos presented the history and the academic profile of FSHN, and useful information related to the UGP.

Meetings continued with seven (7) members of the **Internal Evaluation Group (OMEA)** and two members of the Institutional Unit of Quality Assurance (**MODIP**), representing academic and administrative staff. The first part of the meeting was allocated in the presentation of the FSHN compliance to the 10 accreditation standards. The teamwork accomplished by the OMEA was evidenced by the fact that several Faculty presented one or more of the accreditation standards. The second part of the e-meeting was allocated on discussion of a variety of issues, focusing on the curriculum revisions, student progression and assignments. The OMEA members expressed their support and commitment to the quality assurance policy to further promote the academics and outputs of the UGP, including the role of the academic advisor, student internships, thesis, student and **teaching/research personnel (DEP)** mobility, flexibility and modernization of the Curriculum and infrastructure items. At the end of the day and during debriefing, EEAP members discussed their impressions of the two meetings and identified the need for supplemental material which was requested from the FSHN Head Prof. Drosinos. All requested documents were received the next day.

Meetings continued in the afternoon of June 9, the first being with nine (9) DEP members. EEAP and DEP thoroughly discussed the UGP regarding curriculum, internship, infrastructure, connectivity between teaching and research activities, faculty teaching workload, projects and research activities linking with the UGP and students' performance.

Thereafter, a teleconference meeting with eight (8) students, representing evenly all years of studies took place. The group discussed issues related to their studies, facilities and student life. The group was satisfied with their education and pointed the strengths of the curriculum. At the same time, they have raised concerns regarding the excessive workload and overlapping material between some courses.

All EEAP members had watched and studied the videos/presentations provided by HAHE before the meetings. Thus, during the teleconference with the Senior Administrator and eight (8) teaching assistant staff members (ΕΔΙΠ/ΕΤΕΠ), the group moved to a questions and answers session, focusing on the experimental component of the modules, the available infrastructure and/or other resources and the opportunities for their personal professional improvement.

Meetings continued in the afternoon of June 10th. The meeting with eight (8) programme graduates was fruitful. EEAP expressed its satisfaction that many individuals have secured professional careers, mainly in in the private sector. The graduates' views of FSHN were positive; especially when it comes to the in-depth and quality knowledge they received during their studies.

Seven (7) social partners/stakeholders attended the next meeting. Discussions focused on their contacts and links to AUA and FSHN in particular, and their experiences with graduates and DEP. All were satisfied with graduates and pointed out the strength of the UGP which allows individuals to expand to new areas of knowledge. On the other hand, they pointed out that internships could be further improved in order both the students and the companies maximize their benefits.

Subsequently and during debriefing, EEAP formulated the major points of the findings. During a 30-min meeting with OMEA, the EEAP asked for some further clarifications. The official agenda concluded with a combined meeting of the OMEA/MODIP group, the AUA Rector and the FSHN Head. EEAP presented its impressions and identified key findings of the review.

The EEAP acknowledges the spirit of cooperation shown by the FSHN staff; their openness in the feedback received as well as their willingness to further collaborate and support the Quality Assurance policy of the Department. The online accreditation review deemed sufficient and efficient.

From the end of day June 10th to June 16th, EEAP worked both independently and as a team on their assigned tasks on the Accreditation Report. All individuals who participated in writing this report had the opportunity to voice their views. The teamwork was accomplished via online meetings.

III.   Study Programme Profile

The Agricultural University of Athens was established by law in 1920 (Law 1844/1920) as an Independent Higher Education Institution with University status under the name of the Higher Agricultural School of Athens. In 1989, it was renamed Agricultural University of Athens (Presidential Decree 377/1989). The AUA provides education at both undergraduate and postgraduate levels covering all sectors of agricultural activities. It consists of six Schools, namely: 'Food Science & Human Nutrition', 'Plant Sciences', 'Animal Biosciences', 'Environment & Agricultural Engineering', 'Applied Biology & Biotechnology', 'Applied Economics & Social Sciences'.

The Department of Food Science & Human Nutrition was established in 1976 and today is comprised of the following seven laboratories:

- Laboratory of Dairy Research
- Laboratory of Oenology and Alcoholic Drinks
- Laboratory of Food Chemistry & Analysis
- Laboratory of Food Process Engineering
- Laboratory of Food Microbiology and Biotechnology
- Laboratory of Food Quality Control & Hygiene
- Laboratory of General Chemistry

The number of incoming students is determined yearly by the Ministry of Education and Religious Affairs. However, an ca. 2-fold higher number of undergraduate students are being enrolled on a yearly basis, ranging between 90-120.

The programme offers an Integrated MSc degree (National and European Qualifications Framework 7) within 10 semesters (5 years). The Curriculum is organized into General/Basic and Specialization courses (262-276 ECTS). Integral parts of the Curriculum are the research-oriented Diploma Thesis (30 ECTS) and a 4-month Internship (10 ECTS).

The human resources of FSHN are composed of:

- 27 DEP (11 full professors, 10 associate professors, 5 assistant professors, and 1 lecturer)
- 23 teaching assistants [(Teaching Staff (EDIP) and Special Technical Laboratory personnel (ETEP)]
- 2 Administrative Staff
- Variable number of contract personnel

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 program Compliance

- The Department has established an appropriate OMEA with DEP representing all laboratories.
- FSHN has set specific and measurable goals for the UGP, based on HAHE guidelines.
- MODIP enforced the Quality Assurance Policy (QAP), paired with suitable KPIs in most cases.
- The Departmental QAP declaration is available at the FSHN website both in Greek and English.
- EEAP acknowledges the commitment of OMEA towards establishment of QAP and its continuous monitoring on the yearly basis through reviews and audits.

- EEAP is not aware of any official procedure for QAP communication to students, graduates, stakeholders and other social partners.

Panel Judgement

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

Panel Recommendations

- To ensure that the annual reports and audits to be publicly available on the Departmental website.
- To explore ways to disseminate Departmental QAP to:
  - ➢ students, including international students who wish to attend FSHN
  - ➢ graduates
  - ➢ stakeholders and social partners
  - ➢ policymakers and governmental bodies
  - ➢ general public

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 2010 external programme evaluation resulted to a revised curriculum that was implemented in 2014. There was no point-to point response to the 2010 external evaluation, yet information was provided as supplementary material to EEAP upon request.
- The current curriculum is comprised of 49 mandatory and 27 elective courses (of which students should take 13 to graduate), a 4-month internship, and a research Thesis. Internships are typically conducted in 2-month summer modules or during the 10th semester.
- Students accumulate more than the 300 ECTS mandated (minimum of 302/maximum of 316 depending on the elective courses they choose).
- Graduation rate at the 5-year mark is extremely low. In only one of the last four years evaluated (Academic year 2016/17) had 2% (or two students) graduating in time.
- The research focus and quality of the Theses is acknowledged. The EEAP deems the current curriculum to be at the level of Integrated Masters Tier 7 as specified by the National & European Qualifications Network.
- The Department encourages the publication of undergraduate research works, linking teaching with research. This has been documented by the several peer-reviewed articles – at least partially achieved by the research of undergraduate students.

- The 42-page Student Guide is well-constructed and contains useful information for the students and the framework of their studies including basic information about AUA, FSHN and its seven Laboratories, internships and Thesis. The English version was not available on the website.
- The Departmental website includes links to downloadable syllabi (pdfs) in Greek and English.
- Curriculum revision procedure considered the study program of renowned Departments from abroad, but it did not involve in-depth consultation of stakeholders, external experts, students or graduates.
- A number of the offered courses are not tailored to the current student demographic. Many have entered FSHN through the health sciences path and do not have the appropriate background in Mathematics to comprehend and excel on mathematics-demanding courses.
- Students expressed concerns about some courses that are not tailored to their needs (some examples presented to EEAP were Cell Biology-Genetics) or have too detailed of information for the needs of a FSHN graduate.
- Few or no course prerequisites exist, thus allowing students to enrol in advanced courses without the necessary background knowledge.
- Twelve (12) courses are being offered in the English language that further enhances the standing of the Department within an international context and increase incoming international student mobility.
- The stakeholders acknowledged the capabilities of students during execution of internships. However, a feeling that neither industry nor students get the full potential of the experience has been expressed.
- The curriculum is based on the application of modern methods of teaching, training and assessment. It is designed for students to attain learning outcomes in a friendly and creative environment. Online tools (e-Class platform etc.) facilitate and streamline learning processes.
- Most Faculty are accessible and available for personal communication with their students.
- DEP links research and teaching in the UGP, mainly through the research orientation of the Thesis, and by using examples of their research in courses. Furthermore, a significant amount of state-of-the-art equipment has been purchased, being employed in teaching demonstrations as well.
- Teaching load appears to be relatively high due to the increasing number of students. In several cases, the teaching staff has to divide students into several subgroups to accommodate laboratory exercises.

Panel judgement

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

The Accreditation Panel agrees that this Programme leads to a Level 7 Qualification according to the National & European Qualifications Network (Integrated Master)	YES	NO
	X	

Panel Recommendations

- The program has an unacceptable low 5-year graduation rate. Steps should be taken (see below for suggestions) to have at least 50% of the students graduate in the 5-year mark.
- The program should not exceed 300 ECTS.
- There needs to be consolidation of knowledge to eliminate redundant or excessive knowledge presented in some courses. During the next restructuring of curriculum, FSHN should increase the pool of elective courses and drop the number of mandatory ones.
- The Student Advisor should assist students putting together a program that allows for their timely graduation including but not limited to the timing of the Internship and Thesis research.
- The Student Advisor should evaluate and analyse the individual internships notebooks and provide a summary of the main findings through quantitative/qualitative data analysis so as to improve the process.
- FSHN and AUA-at-large must address the issue for the lack of prerequisites, particularly for the advanced courses that are in sequence.
- The better Theses should be uploaded in a dedicated area on the Departmental website to serve as examples of best practices.
- Correct some of the English syllabi which are presented in the Greek form.
- The Curriculum must be periodically evaluated, including formal input from students, alumni, the Geotechnical chamber and stakeholders.
- Introduce courses (mandatory of electives) on (i) food cost analysis for newly developed products, (ii) seafood resources (fish and seafood plants) and other aquatic products, (iii) Olives and olive oil product usages.
- Availability of Nutrition and Food Science computer programs for (i) Human Nutrition Analysis and (ii) Food Product Analysis for European, US, Canadian, and International-accepted standards in various languages for major countries.

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

- About 75% of courses is linked with a laboratory/experimental component whereas the vast majority of the Theses are research-oriented as expected from an integrated Master programme.
- Students can select 13 among 27 elective courses based on their interests. It respects students' diversity and their individual needs and, given the availability of electives and a variety of pedagogical means, it is possible to pursue different learning paths.
- The assessment criteria and methods are published in advance and included in the course outlines.

- The majority of theory (~62%), are assessed by a single, comprehensive final exam at the end of each semester. Forty-two (42%) of all courses have a single exam for both theory and laboratory exercises.
- Course material is available to the students for all courses through E-class. Furthermore, students are entitled to receive a book/course.
- Undergraduate students and alumni recommended elimination of overlapping and/or excessive information in some courses.
- The role of the Student Advisor is at best very limited as indicated by both students and graduates
- The Department is offering certifications in Computer Sciences and Oenology.
- Current students and graduates were satisfied about their overall training and their professional development and careers. However, students and graduates interviewed did not appear to be representative of the cohort given their grades and their graduation timeframe.
- The EEAP was informed about the handling of complaints through direct communication with the Head but is not aware of any formal appeal procedure.
- Students can evaluate courses (lectures and laboratory exercises) anonymously through questionnaires. The evaluation includes major aspects of the educational process, including instructor's competence, supervisory means, educational material, etc. However, a shortcoming was identified in the low student participation in the evaluation process.

Panel judgement

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

Panel Recommendations

- Identify tools to achieve higher graduation rates:
  - ➤ hands-on involvement of the Advisor in the student's study program, internship and Thesis
  - ➤ elimination of redundant courses
  - ➤ elimination of excessive information in courses that are not tailored for FSHN students
  - ➤ re-evaluation of courses with high failure rates and revamping as needed
  - ➤ Faculty in all but especially in high failure rates courses, should consider multiple tools for student assessment including but not limited to midterms.

- Enhance communication and feedback input with current and past students, utilizing social media platforms with an academic orientation.
- The role of the Academic advisor should be clearly communicated to students and accordingly, students should be advised to seek relevant guidance by their appointed advisors.
- Student progression, success and drop-out rates to be monitored on annual basis by the Academic Advisor with the aid of Secretary and where poor performance is monitored, mitigations' measures to be taken.
- Student teaching evaluations need revamping and incentivization. A significant obstacle is that attendance is not required in lectures. Hence, the student evaluation could be promoted by not reporting grades until an evaluation is submitted. In case of no attendance, the student should leave the questionnaire blank and justify a reason for no attendance.
- The EEAP recommend the Department to consider promoting online courses leading to relevant certification and contribute to the development of general skills, enhancing the curriculum. Such certifications will be incorporated in the Diploma Supplement. Indicative online offerings can be related to Lab safety, Scientific writing, Ethics.

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

- Students are admitted to FSHN via the National Exams system. The Ministry of Education and Religious Affairs determines the number of students admitted. In the last five years, there are ~120 students admitted to the programme.
- During the 1st academic year, FSHN organizes welcoming and orientation sessions for incoming students, informing the group of the facilities, Curriculum, training internships, provisions for student care (room and board, exercise, leisure), and mobility avenues, among other topics.
- Students can participate in study abroad programs such as Erasmus+ and a significant number of positions for both incoming and outgoing mobility are being filled.
- Students do mandatory internships that lasts four months and takes place in the summer months in the last two years of the study in private or public sectors and is financially supported in some cases. Successful completion is a prerequisite for obtaining a degree.
- The Diploma Supplement is a document explaining the qualification(s) gained, the learning outcomes, the content, and the status of the studies that were pursued and should be provided to graduating students in both Greek and English, as is required by law. The Diploma Supplement is issued automatically upon graduation in Greek language, yet not in English.
- At the end of the internship, students submit to FSHN a certificate of completion (issued by the entity where the training took place) and their evaluation sheet during the internship (to be completed by the institution's supervisor) while preparing a relevant evaluation report.

Panel Judgement

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

Panel Recommendations

- Issuing of the Diploma supplement to take place automatically upon graduation both in Greek and in the English language.
- A dedicated area in the FSHN website about Erasmus+ agreements should be developed, providing additional information about existing bilateral agreements, regulations and procedures and/or redirect to relevant Institutional website links.
- The role of the Academic Advisor needs to be significantly enhanced, as elsewhere described. Mitigation measures to be taken when poor student performance is observed.
- The total workload for receiving the degree must be exactly 300 ECTS units, equally distributed in all 10 semesters, as in all Integrated Master's programs. If a student chooses to take more courses and accumulates more than 300 ECTS units, the additional courses could be documented in the Diploma Supplement.
- FSHN needs to establish additional awards of excellence for outstanding students and seek sponsorships from stakeholders to support this initiative.
- Faculty staff members may additionally offer career orientation services, counselling and guidance about studentship issues and offer supportive role to the DEP in charge of the Internships at Departmental level.

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

- Students expressed their satisfaction that most of the courses include laboratory exercises with hands-on experience. Concerns have raised for some laboratory exercises that allocate significant parts in teaching of the theoretical background.
- Instructors use a variety of teaching tools and pedagogical methods. According to OMEA, all course teaching material (.ppt presentations) are available online through the e-class platform.
- DEP average teaching load is well above the threshold of 6 h per semester mandated by law.
- Modern equipment, purchased through such funding channels, are used for the student hands-on experience.
- Several DEP have impactful research activity and international recognition, reflected in the number of publications in refereed journals, citations, h-index, attracting funding and through the HAHE templates).
- AGRI recruitment and promotion policies are consistent with the practices and the rules and regulations of both AUA and the Ministry of Education.
- The Accreditation proposal provides a strategy to enhance mobility opportunities for the academic staff through Erasmus+. Sabbatical leaves for professional enhancement are underutilized, mainly due to the reduced number of DEP available to teach courses.
- EEAP is not aware of a plan for teaching staff professional development opportunities, namely junior DEP and supportive academic personnel, with a PhD degree (i.e. start-up grant, mentoring).
- EEAP is not aware of any apparent mechanisms for rewarding excellence in teaching.

Panel Judgement

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

Panel Recommendations

- The new positions should be filled strategically and in disciplines that maximize the potential for growth in research and teaching. To this aim, FSHN should adopt and incorporate a clearly defined research strategy focusing on specific scientific areas and research activities, giving priority to the nutrition aspects that appear to be underrepresented.
- Expansion of coursework and research in aquatic/seafood products - Attract additional faculty with relevant expertise.
- Hiring staff members with diversified educational backgrounds (graduates from other academic/research institutions) and translational research focus, including proven links with the food industry.
- The Ministry of Education sets promotion rules. It is at the description of the FSHN to consider establishing transparent internal quality standards criteria for promotion with appropriate adjustments for the unique needs of each Specialization/Division and wet bench vs. field research productivity.
- Develop an Action Plan to encourage the professional development of DEP with particular attention to Assistant Professors and Special Scientific Personnel (EDIP) with PhD degrees and significant scientific outputs.
- Adopt a policy of promoting and rewarding excellence in teaching across all personnel ("Teacher of the Year"), based on the student questionnaires and other related achievements and activities of the teaching staff.
- Academic staff that is off-campus for scientific purposes (i.e., conference attendance) should teach lectures online, which has widely been adopted by the students after the COVID pandemic.
- FSHN should develop strategies for attracting international lecturers/researchers for short, medium, and long-term visits (i.e. sabbaticals) and lecturing in FSHN.

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 S UGPPORT 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

- FSHN is housed in a two-building complex on the main campus of AUA. The buildings include classrooms and teaching laboratories that, in several cases, are shared with other Departments. There are five large lecture rooms (amphitheatres) and more dedicated ones, which are explicitly assigned to each laboratory unit. Some amphitheatres of common use with other Departments were rather outdated.
- All Laboratory Units provided informative PowerPoint presentations and/or short videos of each facility and infrastructure.
- The short video prepared by the Laboratory of Food Quality Control & Hygiene (https://www.youtube.com/watch?v=MEK-IQ-YO6Q) was an excellent example of virtual tour.
- Most laboratory units include state-of-the-art equipment, although at certain cases the lack of space is a limiting factor. Constrains arise regarding the number of students that each laboratory can support.
- The Administrative staff is comprised of two individuals with excessive workload.
- AUA does not have dormitory facilities but has established housing agreements with other Universities that allow a certain number of students to have access to dormitory accommodations.
- Exercise facilities, student clubs and amenities for extracurricular activities and other support services are located on campus and are easily accessible by the students.
- FSHN teaching facilities include of a large number of lecture rooms, research laboratories and analytical equipment.

Panel Judgement

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

Panel Recommendations

- Need of additional buildings and space for improving the Pilot Plant such as:
    - (i) Meat products and processing
    - (ii) Seafood resources (fish and seafood plants)
    - (iii) Olives and olive oil product usages

- The videos referring to different laboratories should follow a standardized format.

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

- Data presentation by OMEA members has been detailed and comprehensive through tables and graphs and assisted the EEAP in understanding trends and allowing direct comparisons.
- Several services (Central administration office, the Faculty -and Dean office, and OMEA) keep data for the information management and a continuous interaction process exists among these three sources where data are collected.
- Key performance indicators were clearly outlined for the registered active and non-active students, but no information was provided for the graduates of FSHN after receiving their degree (employment, further studies for advanced degrees in another university, etc.).
- Lack of an Alumni Association that track the employability and career paths of graduates.
- University has recently established satisfaction surveys (exit interviews) for graduates through questionnaires.
- The laboratories, although of small surface area, are very well equipped with modern equipment, and there is a general feeling of extensive sharing among laboratories after the proper training of interested users.
- The University's Library is an excellent place with computers for common use, retrieving information, and a place for quiet studying.
- Stakeholders representing various industries and organizations where students performed their practical training, all were extremely pleased with the quality of the students they accept for the practical training.

- Although the students were aware of the general policies of FSHN, for some reason they were not appropriately informed about the Academic advisor.

Panel Judgement

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

Panel Recommendations

- To establish a formal Alumni Association and track the employability and career paths of graduates.
- To determine the effectiveness of the Department in developing graduates who secure a job in the market based on employment of graduated students
- To incorporate in the orientation of the newly-accepted students useful information that will help them along their studies, such as of the Academic Advisor and his/her role, present in each course exciting opportunities for programs of student mobility later in their studies, and explain the protocol how complains will be submitted and handled.
- To develop a complain protocol template where a student will have the ability to submit electronically. Then this document becomes part of the available data and helps develop improvements in various programs and activities in response to reasonable and fair complains and requests.
- Incorporate stakeholders and industry representatives in planning for changes and decision taking regarding practical training, design of new laboratory pilot plants (i.e. spray drier, meat pilot plant, ice cream and frozen yogurt making pilot plant, etc.).
- Organize "practical training days" and "career days" and invite industry representatives to present what they can offer and at the same time provide an opportunity for the students to get as much information as possible on available practical training locations and jobs for future career.
- The findings of the exit interviews should be used as inputs to revise the UGP.
- FSHN to develop anonymous online satisfaction surveys for all its academic and administrative staff.

Principle 8: Public Information

INSTITUTIONS SHOULD PUBLISH INFORMATION ABOUT THEIR TEACHING AND ACADEMIC ACTIVITIES WHICH IS CLEAR, ACCURATE, OBJECTIVE, UGP-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

- FSHN communicates its teaching and academic activities mainly through its website that is considered out-dated.
- The English version of the website covers part of topics presented in the Greek version
- UGP as well as individual course outline is available online.
- The rich mesh of FSHN activities (meetings, conferences, and connectivity to various stakeholders) are not provided on the website.
- The students' professional prospects and relevant stakeholders' chambers and associations' involvement are not described.
- Some information dealing with audits, mobility grants and internships are not provided and/or being redirected to the Institutional (AUA) website.
- The tab dealing with practical exercise is advised to incorporate information regarding the rules and the evaluation process with the students' online questionnaires.

Panel Judgement

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

Panel Recommendations

- The website needs extensive restructure to become more user friendly and appealing. Data need updating and presented in an integrated and easily accessible manner as stated above.
- The English version of the website to reflect all topics presented in the Greek version.
- Make all information provided to EEAP readily available on the FSHN website for use by prospective students, industry and stakeholders at-large. In addition, add the template for submission of complains by students and other personnel.

- Amendments needed to several sub-links dealing with (1) upload of internal audits and reviews (2) mobility opportunities of both students and staff, (3) internships, (4) professional prospects of graduates, documenting the existence of the Representative professional Chamber that assures their professional rights, (5) outreach activities.
- FSHN is encouraged to take advantage of social media presence with academic orientation to increase the visibility of its research and teaching activities, namely LinkedIn™. This instrument will also allow FSHN to track alumni's career paths, as stated in Principle #7.

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

- FSHN undergoes a self-directed internal self-assessment of all study programs annually as planned, according to HAHE templates and guidance and support by MODIP, following the Quality Assurance Requirements.

- All findings are recorded and submitted for review to QAU/MODIP of the Department in a timely manner. The results of the findings are presented and being shared within the Department.

- All participating groups (students, alumni, stakeholders) felt that the undergraduate program offers knowledge, skills, and competencies to secure a rewarding career.

- Student needs and satisfaction are monitored through course questionnaires and a template for exit interviews was prepared.

Panel judgement

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

Panel Recommendations

- Fully implement exit interviews to gather actionable data that will complement the limited participation in course, faculty and staff evaluations.
- The study program's annual self-assessment reports (based on HAHE templates) should be accompanied by executive summaries with main findings and the relevant audits.
- The self-directed assessments to be properly documented, distributed, and result in action plans.
- The above-mentioned reports should be available to the public through the FSHN website and via other dissemination and communication tools.

Principle 10: Regular External Evaluation of Undergraduate Programmes

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

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

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

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

Study Programme Compliance

- The EEAP realized the willingness of FSHN staff to further work on study program compliance following the rules set by the HAHE.
- All Faculty and staff members are well aware of the importance of the external review, its role, purpose, and its contribution that has an effective result in improvement and development of the overall quality.
- During our meeting with external stakeholders from various disciplines, they expressed a strong support for the institution and their enthusiasm to fully participate in joint activities.
- EEAP is not aware of any recent external review of the FSHN study program by an Agency other than HAHE.

Panel judgement

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

Panel Recommendations

- A comprehensive action plan and aggressive implementation would be a prerequisite to maintain the quality of FSHN's program and mission to achieve and secure successful future accreditation/evaluation.
- FSHN should develop a strategic plan with detailed action plans and implementation timelines, providing a roadmap of future accreditations/evaluations.

PART C: CONCLUSIONS

I. Features of Good Practice

- A highly impactful UGP
- Significant research outputs by the majority of DEP
- Student-centred teaching methods bridging in-class knowledge with research activities
- Well-equipped labs that at certain cases include modern facilities
- Significant student hands-on experience
- Significant contribution to the UGP by a considerable number of well-educated teaching assistants
- Graduate satisfaction of the professional opportunities offered by the programme
- The research orientation of Thesis
- Provision of 12 courses in English language
- Pilot Plant is fully equipped with modern equipment in the wine and dairy sector
- Staff commitment to assess and ensure the quality of the degree
- Readiness and openness to implement recommendations by the evaluation /accreditation body

II. Areas of Weakness

- Exceptionally low graduation rate after the completion of 10 semesters
- Lack of space for most laboratories both for teaching and research purposes
- Need of additional buildings and space for improving Pilot Plant in additional research areas
- Lack of an Alumni Association that track the employability and career paths of graduates
- Out-dated Departmental website

III. Recommendations for Follow-up Actions

- Take corrective measures as outlined in Principle #2 to have at least 50% of the students graduate in the 5-year mark
- Mitigation measures should be undertaken when extensive failure rates for specific modules are being monitored
- The ECTS of the curriculum to be adjusted in 300 ECTS, 30 for each semester
- Curriculum revisions to include input from the stakeholders, external experts, students and graduates
- Nutrition curriculum is in need of further expansion in the UGP
- Reduce the courses leading to the degree by merging those with significant overlaps
- To further enhance mobility of both incoming and outgoing Faculty (i.e. through sabbaticals)
- Each Laboratory to perform a strengths/weaknesses/opportunities/threats (SWOT) analysis and a feasibility study regarding its future positioning and the number of DEP/EDIP/ETEP needed to be fully operated.

- To apply comprehensive tools for dissemination of the Departmental Quality Assurance Policy
- Annual evaluation audits: Review outputs should be disseminated through the website and mailing lists to students, alumni and stakeholders
- Enhance the role of Academic Advisor – Its role to be clearly communicated to the students
- Assess and implement approaches to recognize excellence in teaching and research
- Reward outperforming students through awards, funded by key stakeholders
- Encourage/offer option for Thesis writing in English
- Establish a strong presence in social media with an academic profile, using tools that appeal to prospective students
- Develop a procedure to involve the GEOTEE in revisions of the study programme – highlight professional rights
- Track career paths of graduates through the development of an official FSHN alumni association
- The proposal of extending the pilot plant and labs for a meat processing and analysis of various aspects of this important field has to be looked in a well searched and planned location that suits the department accordingly
- Introduce students to available options for continuing their studies internationally through distance learning available through online programs (i.e. coursera.com)
- Amend website: focus on improvements and uniformity

Summary & Overall Assessment

The Principles where full compliance has been achieved are: **1, 4, 5, 6, 7, 9, and 10.**

The Principles where substantial compliance has been achieved are: **2, 3, and 8.**

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	

	YES	NO
The External Evaluation & Accreditation Panel agrees that this Programme leads to a Level 7 Qualification according to the National & European Qualifications Network (Integrated Master)	**X**	

The members of the External Evaluation & Accreditation Panel

Name and Surname   **Signature**

1. **Associate Prof. George Manganaris (Chair)**
    Cyprus University of Technology, Lemesos, Cyprus

2. **Prof. Ioannis Tzanetakis**
    University of Arkansas, Arkansas, USA

3. **Prof. Themis Michailides**
    University of California, Davis, USA

4. **Dr. Demetrios Kazantzis**
    Del's Lemonade and Refreshments Inc, USA

5. **Mr. Lukianos Kontelas**
    Representative of the Geotechnical Chamber of Greece, Greece