



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ

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ΑΡΧΗ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ  
ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΣΤΗΝ ΑΝΩΤΑΤΗ ΕΚΠΑΙΔΕΥΣΗ

HELLENIC REPUBLIC

H Q A

HELLENIC QUALITY ASSURANCE  
AND ACCREDITATION AGENCY

# Accreditation Report for the Undergraduate Study Programme of:

## Biology

Institution: University of Crete

Date: 19 October 2019

ΑΡΙΣΤΕΙΔΟΥ 1 & ΕΥΡΥΠΠΙΔΟΥ, 105 59 ΑΘΗΝΑ  
Τηλ.: +30 210 9220944, FAX: +30 210 9220143  
Ηλ. Ταχ.: [adipsecretariat@hqa.gr](mailto:adipsecretariat@hqa.gr). Ιστότοπος: <http://www.hqa.gr>

1, ARISTIDOU ST., 105 59 ATHENS, GREECE  
Tel.: +30 210 9220944, Fax: +30 210 9220143  
Email: [adipsecretariat@hqa.gr](mailto:adipsecretariat@hqa.gr). Website: [www.hqa.gr](http://www.hqa.gr)



Ευρωπαϊκή Ένωση  
Ευρωπαϊκό Κοινωνικό Ταμείο

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 **Biology** of the **University of Crete** for the purposes of granting accreditation

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

### **I. The Accreditation Panel**

The Panel responsible for the Accreditation Review (AP) of the Undergraduate Study Program of **Biology** of the **University of Crete** comprised the following three (3) members, drawn from the HQA Register, in accordance with the Law 4009/2011:

- 1. Prof. Dimitrios K. Grammatopoulos** (chair)  
Warwick Medical School, UK
  
- 2. Prof. Dr. Efthimios A. Mitsiadis**  
University of Zurich, Zurich, Switzerland
  
- 3. Dr. Nicholas T. Ktistakis**  
Brabraham Institute, Cambridge UK

## II. Review Procedure and Documentation

The Panel received information about the Accreditation procedure and relevant documents on the 3rd of October 2019. The received documents included:

1. The accreditation proposal of the UCB's (University of Crete Biology) undergraduate programme.
2. The study guide for undergraduate students.
3. General guidelines for different academic programmes (PhD thesis, Diploma work, mobility, practical exercise).
4. Information about courses offered currently and in the past.
5. The policy of the UCB regarding various benefits, activities, Libraries, and safety rules during the lab exercises.
6. Targets for the UCB up to 2020.
7. Results of questionnaires given to students.
8. Results of the internal evaluation of the UCB.
9. Quality assessment data for the UCB and the undergraduate programme.
10. Additional information regarding the citations, impact factor and funding for the Faculty members (requested by AP and received on place).
11. Information about quality assessment of UCB from 2017 to 2019 (ΟΠΕΣΠ).
12. Additional information about UCB (advertising leaflets, ranking, Faculty accomplishments, various statistics, GDR etc).
13. The external evaluation report carried out in 2010.

The Accreditation Panel (AP) did not receive Faculty CV's, but most were available in the Departmental website.

The AP met at ADIP offices on Monday, 14th of October with the President of ADIP Prof. Pantelis Kyprianos and the Managing Director, Dr. Christina Mpesta. During the meeting, AP members discussed the pending accreditation and asked several questions about various procedures. The meeting closed at 12:00pm and the AP travelled to Heraklion with an evening flight.

The site visit to the UCB started the following day, Tuesday, 15th of October at 9:30am. The AP members met at a conference room of the Biology building with key members of the Department, including the:

- Vice Rector Professor Ioannis Karakassis,
- Chair of Department Professor Michail Pavlidis,
- President of the University Quality Assurance Unit (MODIP) (Prof. Karakassis),
- members of MODIP Professor Andreas Fountoulakis and staff,

- members of UCB OMEA (Professor Stergios Pirintsos, Professor Electra Gizeli, Assistant Professor Christophoros Nikolaou and the Chair of UCB).

The AP subsequently met with academic staff members selected by the Department that included 6 Professors, 4 Associate Professors, and 2 Assistant Professors. Present were also one EDIP member and 2 postdoctoral fellows. The AP also requested to meet with a senior faculty member from the Medical School in order to fully appreciate research and training interactions between the two departments. A short meeting was therefore carried out at that point with Dr Thermos, Professor of Pharmacology, School of Medicine. Next, AP met with a limited number (7) of students from years 2 to 4, as well as graduates (post-doctoral researchers and graduates working in various Research Institutes and industries). The last meeting of the AP was held with a group of external stakeholders: Panagiota Poirazi (Institute of Molecular Biology and Biotechnology), Antonios Magoulas (Hellenic Centre Marine Research), Maria Kalathaki and Alexandra Ntroumpogianni (Secondary Education), Anna Kalogridi (Euromedica).

The next day, October 16th, the site visit started at 9:30 am, with visits of main and secondary auditoria, various classrooms and teaching laboratories followed by visits to several research laboratories. AP also visited the main Library of the University of Crete and the Green House of UCB. In the last meeting of the day, the panel provided an overview of their assessment of UCB to the Chair of Department and representatives of the MODIP and OMEA and discussed major findings. The meeting concluded at 12:30 pm.

### III. Study Programme Profile

UCB Dept was founded in 1981 and started educational activities in the academic year 1983 initially offering postgraduate education at MSc level and at undergraduate (BSc) level in 1987. Professors Kafatos and Nafpaktitis were the founding chairs of the Department and organized it according to state-of-the-art contemporary principles into three sections reflecting broad levels of biological organization rather than traditional disciplines. They envisaged a collegial faculty structure, representing a radical departure from the traditional Chair system widespread in the Greek academic set-up at the time.

UCB dept today is an internationally recognized center for contemporary university education and research in the field of Biology. According to the Times Higher Education rankings, the UCB is considered the top Biological Sciences undergraduate programme in Greece. The University of Crete has in place a strategic plan (UoC 2000-2025) to become one of the top 200 universities in the world by 2025.

The academic principles of UCB dept, according to their mission statement, are to provide high level and quality of training in Biology, according to international educational standards, in a high quality environment that fosters scientific thinking.

UCB dept is part of the Cretan biosystem that includes the Institute of Molecular Biology and Biotechnology (IMBB), Hellenic Centre Marine Research (HCMR), Natural History Museum of Crete (NHMC) and Botanical Gardens. The close proximity of these stakeholders represents a major strength of the Department. It shares the campus with the Medical School and the Departments of Physics, Chemistry and Mathematics of the University of Crete.

The duration of studies is four years (eight semesters) and currently requires 240 ECTS. These could be accumulated through 32 compulsory (135 ECTS) and elective courses, laboratory courses, self-driven studies, group work and diploma Thesis. The curriculum is complemented by elective courses offered by other Departments, field trips, Erasmus mobility and placement internship, and 3-month laboratory courses. A revision of the curriculum during 2004 introduced 2 teaching streams: (i) Biomolecular Sciences and Biotechnology and (ii) Environmental Biology and Management of Biological Resources. Research activities are broadly divided into three main areas: i) biochemistry, molecular, cellular and environmental biology; ii) biology of organisms, populations, environmental and marine biology; iii) biotechnology and applied biology.

UCB receives every year about 130 students, a number 50% higher than requested by UCB (80 students). The overall impression by staff and stakeholders is that students entering the UCB undergraduate program are of high calibre, keen to pursue advanced studies and a career relevant to the chosen field. The drive of the students is high, evident by the fact that 87% of students graduate within < 6 years.

The registered students within n+2 year (n being the required four years of studies) are around 41, while students exceeding n+2 years are about 69.

The average degree grade is 7.3.

The Department is fairly well equipped with sufficient space, very clean and attractive, with no graffiti or littering and this is justifiably a point of pride for the Faculty. There is a bus connection with the city that is offered free to students. There are no halls of residence for students (they were burned down 2 years ago) but plans are in place for new buildings within the campus.

There are appropriate large and small lecture halls, one computing lecture room, and one teleconference center.

Over the past 10-15 years the Department lost a number of high profile senior academic staff. Currently, UCB has 23 teaching staff (ΔΕΠ) and 5 administrative staff members. There are also 11 supporting teaching staff (ΕΔΙΠ/ΕΤΕΠ).



## 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).*

The AP considered the following:

- **the suitability of the structure and organization of the curriculum**

The structure and organization of the study programme appears suitable to the teaching programme objectives of UCB. The learning objectives, outcomes and qualifications are in accordance with the European and the National Qualifications Framework for Higher Education. There are considerable efforts to promote high quality and effectiveness of teaching, with the ultimate goal of equipping graduates with skills allowing them to be successful in their careers and workplace as well as for their further graduate training. The curriculum appears to be dynamic with aspiration to cover a broad range of thematic areas of Biology. While this is commendable, AP noted the danger of spreading the available expertise too thin and compromising depth in areas of potential strength. The recent hiring of two new Faculty will make positive contributions in this regard. Notable was also the relative scarcity of early

educational efforts focusing on Evolution. On the other hand, AP commends efforts such as “Darwin Mondays” aimed at the lay-audience in the Heraklion vicinity and beyond.

- **the pursuit of learning outcomes and qualifications in accordance with the European and the National Qualifications Framework for Higher Education**

The degree awarded is in General Biology with specialisation in one of the two thematic areas indicated (Biomolecular Sciences and Biotechnology, Environmental Biology and Management of Biological Resources.). This is in agreement with European standards.

- **the promotion of the quality and effectiveness of teaching**

The quality of teaching within UCB dept appears to be excellent. All Professors hold a PhD degree and they use up-to-date information from the literature in their courses. In addition, the teaching environment benefits from visiting instructors and course offerings by the researchers at IMBB, Medical School, HCMR and Natural History Museum of Crete (NHMC).

- **the appropriateness of the qualifications of the teaching staff**

Although the teaching staff are well-qualified in their disciplines, AP did not see evidence of retraining mechanisms of the Faculty in expanding areas (teaching sabbaticals, short visits).

- **the enhancement of the quality and quantity of the research output among faculty members of the academic unit**

From the tables provided, it is clear that the Faculty have a very good number of publications per year (average of 60 / year in the last 10 years) that attract an ever increasing number of citations. In the last two years, AP noted a strong number of publications in high impact journals (e.g., Cell Metabolism, Nature Cell Biology, eLife, PNAS etc).

- **ways for linking teaching and research**

Teaching Faculty actively pursue externally funded opportunities with over 3 million Euros / year currently awarded. Such external research funding strengthens up-to-date laboratory training of the students. In certain areas such as microscopy, the equipment in the research laboratories is of the highest standard and allows exposure and often training of undergraduates in state-of-the-art equipment and analytic procedures. However, in other labs the AP noticed a range of old and ageing instruments. Overall, the research programmes appear to be linked effectively with the undergraduate teaching and training programme.

- **the level of demand for qualifications acquired by graduates, in the labour market**

The labor market for UCB students can involve fisheries, pharmaceutical, agrochemical and biomedical industries. The majority of UCB graduates choose to pursue further graduate education (PhD, post-doc) and many appear to excel in their subsequent academic or industry-based placement.

- **the quality of support services such as the administrative services, the Library, and the student welfare office**

UCB faculty are assigned student-advising responsibilities (3 Faculty per year) for mentoring. There are also established procedures to address student welfare issues, which, however, need to be improved to attract more students. There is one office external of UCB dept dealing with more serious personal issues. There is also a student Ombudsman dealing with troubling incidents. UCB staff also participates in student mentoring in a volunteer way. A central Library of the University provides facilities for studying and literature searching. The building is well-constructed, well-lit, well-organised, with appropriately qualified personnel.

The AP spent a considerable amount of time discussing with students and faculty mental health issues of the student body. The Faculty recognizes the issue but it might be necessary to improve engagement strategies to tackle effectively this almost universal problem.

- **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);**

Annual review procedures and internal audit of the quality assurance system of the UCB undergraduate programme are being managed in collaboration between the OMEA and MODIP. Students evaluate classes electronically, with a very disappointing 10 % of the enrolled students submitting evaluations. This low participation rate minimises the power of statistical analysis of the evaluation data. One possible solution could be to redraft and simplify the questionnaires to encourage wider participation of students.

### Panel judgment

<b>Principle 1: Institution policy for Quality Assurance</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

Target objectives should include longer-term plans, preferably over the next four to five years, to clearly articulate UCB’s strategic plan and adjust it as needed. This is especially important for UCB since the absence of a long term strategic vision was already raised in the 2010 external evaluation and in the 2019 internal evaluation. The UCB should consider thematic identities that clearly distinguish it from other Biology Programmes (Departments) in Greece.

The under utilised Faculty Advisors could consider student engagement in a group-wise format to discuss common problems to emphasise the importance of this role. Seminars and workshops are very helpful, however the AP noted that most of them are external (e.g. IMBB) and the

students do not attend meetings at other sides. The Department should consider starting their own seminar series to be held locally.

The MODIP/OMEA/Department communication could be strengthened in view of the fact that the Departments from now on will be reviewed via the current mechanism only.

We encourage the Department to find ways to enhance mobility of the Faculty to keep up with emerging trends in teaching and education in general.

## Principle 2: Design and Approval of Programs

**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.*

The AP considered the following:

- **the Institutional strategy**

UCB's strategy has been formulated to cover two broad areas of Biology: Biomolecular Sciences and Biotechnology, and Environmental Biology and Management of Biological Resources. The AP believes that this is well designed and executed, however a broader vision is required if the biology programme wants to maintain its leading status.

- **the active participation of students**

The student programme is based on international standards to offer both theoretical and practical knowledge through a series of laboratory exercises, practical exercise (elective) and a diploma work (elective). Student representatives are invited to participate in several committees that design strategy, but unfortunately they choose not to. This lack of engagement and input ultimately needs to change. We encourage both the Department and students to engage in meaningful discussion how to resolve this impasse. For the students to have a greater participation in the design of the programme will require much more extensive feedback and evaluation. The AP discussed several ideas on how to improve and execute this point.

- **the experience of external stakeholders from the labour market**

The limited number of the stakeholders of the labor market invited to meet with the AP (diagnostic medical centers and biotech startups) and the academic partners mentioned that the UCB graduates are very well trained. The AP encourages the UCB to expand the range of stakeholders available for consultation, although AP realizes the relative isolation of Crete from the main labour market. However, the AP believes that there is a considerable untapped local potential and opportunities with industrial and social partners, outside the traditional areas.

- **the smooth progression of students throughout the stages of the programme**

The programme is structured by semesters. The smooth progression of the students through the programme was described in detail by Professor Pavlidis and the AP found this to be rational, well-designed, clearly articulated and well executed. The AP noted the special effort made by the Department and the University to accommodate students with mobility problems and other special needs. In this respect, UCB is well ahead of the Greek society acceptability and efforts to accommodate this extremely important social group. In relevant national fora, UCB should be used as an exemplar programme.

The Student Guide is up-to-date and the study programme is revised on a regular basis. The curriculum revision procedures are expected to involve an active consultation with students or representatives, but this is not taking place because of the students' refusal to participate.

- **the anticipated student workload according to the European Credit Transfer and Accumulation System**

The programme follows the European Credit Transfer (ECTS). The AP has not received any complaints about the workload.

- **the option to provide work experience to the students**

UCB encourages 3-month training sessions in external companies or Institutions for the students. At present, there is not enough funding to allow all students to participate but additional funds are sought for this.

- **the linking of teaching and research**

Teaching and research activities are pursued through the Diploma project (elective) that is experimentally oriented and requires completion of a research project. Other ways to link teaching and research are summer placements, Erasmus programmes, journal clubs within courses etc. Feedback received suggests that the Faculty are keen to engage with a larger proportion of students in such research-driven activities.

- **the relevant regulatory framework and the official procedure for the approval of the programme by the Institution**

There are procedures in place to officially implement changes and approve them in the General Assembly.

## Panel judgement

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

## Panel Recommendations

The procedure in obtaining feedback from the students needs rethinking and creative new approaches, such as using the laboratory courses to obtain completed questionnaires. The fact that the questionnaire can be shortened and targeted is helpful.

Stakeholders should be clearly identified beyond those present in the meeting with the AP. We felt that stakeholder representation was very limited compared to the breadth of the program. We could foresee strategic stakeholder alliances with small businesses in agriculture, fisheries, small agrotourism. AP thinks that some strategic partners should include local government.

The AP discussed the possibility of reinforcing the course on the general principles of evolutionary theory early during the curriculum, and preferably during the first semester, and not late as part of a bigger course.

### 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.*

The AP considered the following:

- **Study Programme compliance**

UCB Faculty and administration are fully aware that students may have different learning styles. Material for all courses is uploaded on the internet and appears to be very detailed and structured. This is helpful for the learning process. There was an effort in the past to create and upload video presentations for several courses and according to the Faculty and students this was very helpful for the learning process. This programme was not completed due to financial reasons.



Teaching material is available to the students at the beginning of each class through e-class modules. The AP had not the chance to look at actual laboratory written reports.

The teaching faculty indicated consistent efforts to promote quality and effectiveness of teaching. UCB has established a series of seminars and workshops open to all teaching Faculty and lay people with the purpose of assisting Faculty with visibility and adoption of novel teaching principles coordinated by the teaching Faculty. It was commendable that currently some mandatory courses included a project-based approach that encourages students to work in groups, present their analysis via presentations to the class.

Elective courses are very well attended and allow students to actively participate in the teaching procedure through small group presentations. All core courses are based on a Final Examination, while elective courses have more flexible grading systems. Methods of evaluation of student performance depend on the course structure. Evaluation of students is either based on a single Final Examination (potentially very stressful) or on several types of evaluation throughout the year. Student assessment is carried out only by the individual instructor; there was no evidence that more than one examiner becomes involved. Laboratory courses are graded by the laboratory managers. The fraction of students submitting the electronic course evaluations varies according to the class and can be as low as 10%. As mentioned previously, one recurrent issue is that questionnaires are fairly long and this may discourage students to participate in the evaluation procedure.

During the conversation of the AP with students and post-docs it was clear that the relationship with the teachers was based on mutual respect and no problems were revealed. In conversations with the Faculty, it was clear that the welfare of the students was an important issue with all.

UCB teaching faculty and administrators appear enthusiastic and strongly committed to ensuring high quality of student support services.

Although the AP did not discuss the procedure for student appeals (e.g., course grading) it is clear that such a process is in place.

### Panel judgement

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

## **Panel Recommendations**

As planned for the future, shorter questionnaires for the electronic evaluations might enhance student participation.

The teaching Faculty are aware of the importance of development of critical and independent thinking skills and the value of problem-based learning for students. However, the reliance on a single examination for student evaluation, apparently common in large core courses, may create obstacles in the capacity of students to be able to self-assess quality and depth of their learning. Diversifying the evaluation scheme (e.g., student team presentations of selected topics to their peers, their interactions through questioning, and final evaluation by the academic staff) may address this issue and promote more student engagement in the learning process.

Adjustment of student evaluation methods to reduce reliance of some courses on a single Final Examination may be worth exploring by the teaching faculty.

The AP encourages the teaching faculty to continue the video programme of lectures since it proved useful. It is possible that local government may have some funds for this if access is possible for local citizens.

## 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).*

The AP considered the following:

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

During the visit of the UCB, the AP felt that the Department has in place appropriate processes and tools to collect and analyse information. UCB manages effectively and acts swiftly the process of student progression. AP was given very complete lists containing this information that are stored within the student registration system.

- **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.**

UCB has well-established procedures concerning higher education degrees, the duration of studies, rules ensuring students progression, terms and conditions for student mobility. In particular, student mobility is based on Erasmus rules-augmented by Departmental (e.g., emphasis on placement) and University rules. This is well described in the B3 document (Οδηγός Σπουδών).

- **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.**

According to European wide methodology, UCB recognition of credits is based on ECTS. The ECTS system is clearly and consistently applied across the curriculum.

- **Graduation represents the culmination of the students' study period.**

Only students who fulfill all the requirements of the course work can progress to graduation. It is encouraged by the Department that students graduate in a timely manner soon after the 8th semester.

- **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).**

There are established procedures for students to receive documentation that explains the Diploma award and the Diploma supplement (transcript). All documents can be obtained electronically.

### Panel judgement

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

### Panel Recommendations

Since UCB manages and train a very high calibre and motivated students, the AP strongly believes that is feasible to accomplish an even higher rate of graduation within 4 years.

## 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.*

The AP considered the following:

- **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;**

It was mentioned by the whole Faculty that the recruitment procedures are fair and transparent as indicated also by the high level of recent recruits (Spilianakis, Sidiropoulou) and there is no evidence of institutional inbreeding. Of course, as is the case in most Greek Universities, no start up package is available and formal mentoring of the new Faculty is an unknown practice. The AP appreciates considerable loss of key members of staff in the last 10 years, possibly directly related to the financial crisis. This is particularly poignant given that all these Faculty were internationally recognised.

- **offer opportunities and promote the professional development of the teaching staff;**

The AP felt that opportunities and promotion of professional development of the teaching staff are not discouraged but are limited and mainly obstructed by the heavy teaching load. For example, a potential sabbatical can mainly be during the summer months because of the teaching. A possible contributing factor exasperating this problem is that the Department covers many areas by a single member of staff and there is no resilience in the way teaching is distributed.

- **encourage scholarly activity to strengthen the link between education and research;**

All members of staff are research-active, and this helps the link between education and research. New developments in various fields become quickly parts of the curriculum, benefiting the student education.

There is ample opportunity to combine research with education for both students and Faculty. Support Faculty (EDIP) and post-doctoral researchers provide daily supervision to the diploma students and practical exercises.

The AP recognized the very strong potential of the undergraduate cohorts: it is impressive that the vast majority of the UCB undergraduate students (>80 %) are keen to pursue a career in the scientific area of Biology.

- **encourage innovation in teaching methods and the use of new technologies;**

The teaching is based on both standard and innovative methods and technologies. There was no evidence of a mechanism systematically promoting innovation in teaching methods and the adoption of new technologies. There are plans to develop and implement the train-the-trainer programme.

- **promote the increase of the volume and quality of the research output within the academic unit;**

The AP did not identify any mechanism designed to promote increase of the volume and quality of the research outputs within the Department. However, the quality and quantity outputs are considered very good and possibly excellent. The AP recognizes that a significant number of UCB staff benefit from interaction with the IMBB, Medical School, HCMR. This enhances the quantity and quality of research outputs. However, Faculty that are not associated with the mentioned Institutes may have less opportunities for collaborations and productive interactions, thus unintentionally creating a ‘two-tier’ environment.

Shared equipment and resources across the different Departments (UCB, IMBB, Medical School) supports Faculty in their research interests. The AP opinion is that facilities are adequate.

- **follow quality assurance processes for all staff members (with respect to attendance requirements, performance, self-assessment, training etc.);**

The AP did not see evidence for mechanisms that follow the performance of staff and address potential problems. In an environment where there is no clear leadership, analogous to the Department Chair Person abroad, it is not clear how such a mechanism can be implemented.

- **develop policies to attract highly qualified academic staff;**

The policy to attract academic staff (advertisements) is mostly through the nationally implemented ΑΠΕΛΛΑ system. UCB aspires to attract highly qualified staff primarily through its international reputation and the close links to IMBB.

### Panel judgement

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

### Panel Recommendations

There are concerns about the number of students (130 students/year), which is considered much higher than the ideal one (80 students/year) proposed by the Department. This might prevent or discourage external applicants for applying.

The use of alternative teaching methods or web-based tools should be further explored.

Given the prominent position of UCB in Greece and the high quality of the faculty applicants that it attracts, the AP encourages UCB to continue hiring faculty of international standing and capable of securing EU-, EU- and National-level funding.

Publications should continue to appear in high-impact journals.

The Department is strongly encouraged to adopt mechanisms of monitoring quality assurance processes by introducing appropriate indicators and support professional development of the academic staff.

The AP recognizes the need for redefining the strategic orientation of the Department in the context of the rest of the Biology ecosystem in Crete and within Greece. One aim could be to optimise close interactions with IMBB, Medical School and HCMR without losing its autonomy, identity and unique features. The AP considers that this process is long overdue.

The AP encourages stronger efforts to expand the number of foreign students taking part in the Erasmus programme in Crete since this will increase the international profile of the staff and may lead to closer cooperation with departments abroad.

## 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.*

The AP considered the following:

- **Study Programme compliance**

The center in most teaching activities and delivery of the Curriculum is the ‘Fotis Kafatos’ building that houses 2 amphitheatres, 4 classrooms, one computer room, one teleconference room, offices (staff, post-docs, visitors), 2 meeting rooms, and various hands-on laboratory exercises rooms as well as some Faculty research labs. Although the building was originally designed to house only the Biology Department, at present it is shared with the Physics Department, therefore limiting further expansion. The AP understands that many students benefit from laboratory space available at the IMBB and HCMR research Institutes.

The AP was particularly impressed by the Electron Microscopy suite and its availability to the whole of Greek Scientific community for collaboration. In general, the UCB educational facilities are adequate but in need of modernisation. The lack of dedicated infrastructure funding is evident and should be addressed by the Rectors office. The situation is compounded by exposure of students during their research placements to ageing instruments for biological research. The teaching appeared to be well maintained and organized. Hands-on laboratories, where students performed their Practical Exercise appeared to be well maintained and adequately supervised. Educational and laboratory equipment was appropriate, but for the most part not modern. Its life extension owes a great deal to the presence of an excellent maintenance workshop staffed by a single person.



Library facilities and resources are excellent. The Library is located near the UCB dept, well-lit, well-organized, providing ample space for students to utilize the resources for studying or for library research. Library hours appear to be appropriate (opening at 8:30, closure at 20:30 all week days except Sundays).

Information and communication systems appear adequate.

Students are provided with free city bus transportation. This allows easy access to housing and eating facilities within the city. However, student feedback suggests that housing appears to be a challenge within the city of Heraklion.

Support and counseling services are available.

Athletic or cultural resources accessible to students and in the vicinity of the Department appear well-organised and useful.

Overall, UCB is excellently maintained with impressively clean and inviting facilities, both in the classrooms and laboratories as well as in the associated spaces.

### Panel judgement

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

### Panel Recommendations

In view of the lack of external infrastructure funding, the Department should consider alternative ways to modernise some of its equipment, especially those used in research laboratories involved in student training. This will ensure that the students are exposed to cutting-edge research methodologies. One possibility could be to “top slice” a small percentage of research grants coming into the Department and create a replacement fund for equipment.

## 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.*

The AP considered the following:

- **key performance indicators**

UCB presented a large collection of indicators both annual and as a function of entrance year from 2010 up to the present. This includes: Admission Grade for the Department, Student Preference for the Department, Cretan/Non-Cretan Student Ratio, Women/Men Student Ratio, Duration of Studies, Graduation Grade. In general, admission grade is strong, between 16 to 18, and the rest of the indicators are reasonable. The tables imply that the Department collects various KPIs to monitor progress over the years.

- **student population profile**

15% of the students have UCB as their first choice and for another 20% UCB is one of the top 5 choices. In analogy to other Biology programmes, UCB attracts a large number of candidates originally aiming for Medical School. This ensures a high quality of students entering the programme. 70% of students come from outside of Crete reflecting the good reputation of UCB nationally and its recognition as the best Biology Department in Greece (according to the Times Higher Education 2019 guide).

- **student progression, success and drop-out rates**

There are some students who take longer than 4 years to complete their studies. In the last 3 years average time to graduation has dropped from 5.5 to 5 years. That was likely influenced by

the economic crisis. This is a considerable improvement. Data from the last few years suggests that the pace of graduation on time is accelerating and concerns all cohorts.

- **student satisfaction with their programme(s)**

The University and UCB have established mechanisms for collecting and analyzing information regarding student satisfaction. However, although UCB tries to collect information from 100% of the courses, only 10% of the students are involved in this process. Therefore, the information gathering system has failed to capture student feedback. That precludes any chances for appropriate analysis. This is an area of high concern.

- **availability of learning resources and student support**

Instructional resources are available through the web. Study guide is provided to all students as hard copies. The central library also provides books and scientific literature. From the conversation with the students and inspection of the course syllabus on the web, the AP believes that learning resources are appropriate.

- **career paths of graduates**

UCB has established procedures for the collection of data regarding career paths of graduates and employability. The procedure is driven by Tzovana Vlataki, who spends a considerable amount of time on the phone for collecting information.

### **Panel judgement**

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

### **Panel Recommendations**

The Department has established and operates 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. However, the process for determining the quality of teaching (student satisfaction survey) seems broken due to lack of student involvement. It should be noted that according to our direct previous experience other Departments have managed to achieve significantly higher completion rates in relevant surveys. Therefore, this is a major area of concern. Our recommendation is for OMEA in collaboration with MODIP to take responsibility and exploit different ways to engage successfully with the students, even outside the standard regulatory framework. For example, course satisfaction questionnaires could be given during (mandatory) laboratory course. In this respect it is worth noting, students interviewed were unaware of the concept or the role of

MODIP and OMEA. Efforts should be directed towards enhancing the profile of these committees overseeing quality of studies.

## 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.*

The AP considered the following:

- **Study Programme compliance**

UCB has a website that provides information on current programmes. Course content information is available in a prospectus that is updated annually and is available both in Greek and in English. The content of the course descriptions and the courses themselves were very clearly presented. There is an inconsistency in the level of security needed to access lecture notes. This adds unnecessary complexity to the whole process. The quality of the teaching material available on the web appears to be of high quality, although the AP identified some key omissions and inconsistencies around the learning outcomes of lectures.

UCB actively disseminates information about academic events and seminars in the Biology ecosystem. UCB also organises a number of other activities such as "Darwin Mondays" and this information is available on the web site.

In the University website, there is one page describing the "Student Exchange Programmes" of ERASMUS. This page provides the requirements to participate in the programme.

The availability of key quality indicators of teaching staff on the website is not consistently informative. Some personal website information and the CVs are up-to-date.

### Panel judgement

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

### Panel Recommendations

A more concise and better-organized description of course content and learning outcomes of the courses would be highly beneficial.

Including up-to-date information on UCB student mobility programmes (e.g., Erasmus) in the website will be useful.

## Principle 9: Ongoing 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.*

There is regular monitoring and revision of study programmes. This is delivered by the Undergraduate Programme Committee, the General Assembly and OMEA. OMEA leads on the collection, analysis and evaluation of research indicators, course satisfaction questionnaires and internal evaluation report. Additional input is provided by multiple committees (undergraduate and graduate programmes, alumni, stakeholders) that identify changing needs of society.

Specific points are identified and briefly discussed below:

- **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 AP believes that this requirement is satisfactory. Delivery of the curriculum by research active staff ensures lecture notes are enriched with the latest discoveries and advances in the field.

- **the changing needs of society**

The AP believes that appropriate actions are taken to identify and address issues of the changing needs of society. During events aiming at a lay-audience, there could be stronger efforts to discuss general issues of concern (cloning, GMO) with the participation of the audience.

- **the students' workload, progression and completion**

Monitoring of students' workload and progression is satisfactory, and pursued via the faculty advisor programme.

- **the effectiveness of the procedures for the assessment of students**

The effectiveness of the procedures for evaluation of students' performance needs to be more regularly discussed. Currently, data on effectiveness of different methods appear to be lacking.

- **the students' expectations, needs and satisfaction in relation to the programme**

Students' expectations, needs and satisfaction are being partially addressed via the electronic evaluations for each course.

- **the learning environment, support services and their fitness for purpose for the programme**

The Biological ecosystem of the Heraklion campus seems to offer a stimulating learning environment with ample opportunities for participating in a wide range of learning activities within IMBB, HCMR and the Medical School.

### Panel judgement

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

### Panel Recommendations

More accurate assessments should be made to match students' expectations, needs and satisfaction with the programme. As was presented to AP, MODIP may need to be more involved in ensuring effectiveness of the monitoring programme.

The AP recommends that students are explicitly informed of the existence and function of OMEA and MODIP. It is also recommended that programme content review continues to be regularly done, and ideally includes involvement of students.

A closer interaction between ADIP and UCB will ensure that central decisions around the accreditation process are fully understood by the Department. For example, the Department was not aware that the accreditation process currently taking place replaces the old evaluation process (αξιολόγηση).



## 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.*

The AP considered the following:

- **Study Program compliance**

This is the first time that the Department is undergoing accreditation evaluation and, as a result, there were no previous reports to check for compliance. However, an external evaluation of UCB took place in 2010. The evaluation was thorough and well performed by esteemed evaluators from abroad and the report was made available to the Committee. Overall, the Committee felt that the previous evaluation was positive and indicated that the Department was in the right direction (with certain caveats), despite the severe economic crisis that was affecting many aspects of life in the country.

However, the AP noted that the Internal evaluation of the UCB in 2019 did not attempt to address most of the points raised by the 2010 Evaluation committee notwithstanding the considerable time elapsed. As a result most of the suggested improvements were not actioned or implemented. For example, a constant concern for the UCB identified by the 2010 evaluation and by the internal evaluation and confirmed by us is the absence of a strategic planning committee to identify what the long-term identity of the UCB must be in the face of other Institutes and Departments. As previously suggested, external stakeholders (IMBB, Medical School, HCMR) must be included in this process.

We appreciate that some of the recommendations (e.g. control of student selection, number of students, buildings and process of selecting the chair) are outside the Departments control, because of University or national framework limitations. However, the Department should not remain idle and use all the available instruments to formulate a strategic vision.

Overall, it was felt that all Department representatives were very cooperative with the AP, were eager to respond to all questions and were frank in their responses. In addition, they were very keen to take into consideration all raised points and try to improve them.

### Panel judgement

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

### Panel Recommendations

With a real sense of urgency, to create a committee of senior faculty that also includes outside stakeholders (IMBB, Medical School, HCMR, NHMC) as suggested above to develop a strategic plan for the future identity of the UCB. These types of discussions can generate creative tensions that are in the short term adversarial between competing visions but in the long term they are necessary in order to reorient and re-define the UCB.

## **PART C: CONCLUSIONS**

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

- UCB today is an internationally recognized center for contemporary University education and research in the field of Biology. According to the Times Higher Education rankings, the UCB is considered the top Biological Sciences undergraduate programme in Greece.
- The University of Crete has in place a strategic plan (UoC 2000-2025) to become one of the top 200 Universities in the world by 2025.
- UCB dept is part of the Cretan biosystem that includes IMBB, HCMR, NHMC and Botanical Gardens. It shares the campus with the Medical School and the Departments of Physics, Chemistry and Mathematics of the University of Crete.
- Clear evidence that the relationship between students and teachers is based on mutual respect and no problems were revealed. In conversations with the Faculty, it was clear that the welfare of the students is an important issue.
- UCB teaching faculty and administrators appear enthusiastic and strongly committed to ensuring high quality of student support services.
- UCB has well-established procedures concerning higher education degrees including the duration of studies, rules ensuring student progression, and terms and conditions for student mobility.
- The recruitment procedures are fair and transparent and there is no evidence of institutional inbreeding.
- There is a very strong potential of the undergraduate cohorts: it is impressive that the vast majority of the UCB undergraduate students (80 %) are keen to pursue a career in the scientific area of Biology.
- Research quality and quantity outputs are considered very good and possibly excellent.
- Operation of facilities such as the Electron Microscopy suite that support research activities of the whole Greek Scientific community.
- There is a good effort and willingness by the Department to comply with evaluation procedures.
- The staff is proactive, dedicated, enthusiastic, dealing with all teaching duties and involved in high-quality research activities.
- The staff is involved in successful research grant applications.
- An effort to welcome students (orientation day, tour of Department, assignment of mentor) is in place.
- There is a strong awareness of the importance of research impact.
- The library is excellent and functional, with dedicated personnel, well equipped, well-lit and well designed.

- Stakeholders showed great interest in pursuing further existing academic/industrial partnerships with UCB.
- Very good to excellent sport facilities.

## **II. Areas of Weakness**

- AP noted the danger of spreading the available expertise too thin and missing depth in areas of potential strength. This creates also issues of teaching and training resilience.
- Limited follow-up of the career paths of graduates and development of a strong alumni community.
- As is the case in most Greek Universities, no start up package is available and formal mentoring of the new Faculty is an unknown practice.
- No mechanisms that follow the performance of staff and correct potential problems. In an environment where there is no clear leadership, analogous to the Department Chair-Person abroad, it is not clear how such a mechanism can be implemented.
- Although UCB tries to collect information from 100% of the courses, only 10% of the students are involved in this process.
- A number of laboratories contain ageing equipment.

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

Recommendations for follow-up actions have been detailed in each of the ten sections (principles) of the accreditation. The AP wishes to highlight the following actions:

- The Department should be encouraged to expand the number of foreign students taking part in the Erasmus programme in Crete since this will increase the international profile of the staff and may lead to closer cooperation with departments abroad. The University ranking also depends on attracting foreign students.
- Reliance on a single examination for student evaluation may create obstacles in the capacity of students to be able to self-assess their learning. Diversifying the evaluation scheme (e.g., student team presentations of selected topics to their peers, their interactions through questioning, and final evaluation by the academic staff) may address this issue and promote more student engagement in the learning process.
- OMEA in collaboration with MODIP to take responsibility and exploit different ways to engage successfully with the students, even outside the standard regulatory framework. For example, course satisfaction questionnaires could be given during (mandatory) laboratory courses. In this respect it is worth noting that, students are unaware of the concept or the role of MODIP and OMEA. Efforts should be directed towards enhancing the profile of these committees overseeing quality of studies.

- In view of the lack of external infrastructure funding, the department should consider alternative ways to modernise some of its equipment, especially those used in research laboratories involved in student training. This will ensure that the students are exposed to cutting-edge research methodologies. One possibility could be to “top slice” research grants coming into the department and develop a replacement fund for equipment.
- We encourage the Department to find ways to enhance mobility of the Faculty to keep up with emerging trends in teaching and education in general.
- The MODIP/OMEA/Department communication could be strengthened in view of the fact that the Department from now on will be reviewed via the current mechanism only.
- A closer interaction between ADIP and UCB will ensure that central decisions around the accreditation process are fully understood by the Department.
- There is a real sense of urgency to create a committee of senior faculty that also includes outside stakeholders (IMBB, Medical School, HCMR) to develop a strategic plan for the future identity of the UCB\*.

*\*[Addendum <sup>25-11-2019</sup>: In subsequent communication the AP was reassured by information received that the UCB is fully aware of the importance of a strategic plan in order for the department to continue being competitive at national, European and international level. Along those lines, the AP received assurances that the UCB Faculty is in continuous collaboration/interaction with members from the Medical School, IMBB-FORTH and HCMR (external stakeholders) primarily through joint graduate programme-committees, where issues of common interest are addressed, including long-term planning to maintain excellence in teaching, training and research”].*

#### **IV. Summary & Overall Assessment**

The Principles for which full compliance has been achieved are:

Principle 1: Academic Unit Policy for Quality Assurance.

Principle 2: Design and Approval of Programmes.

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

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

Principle 6: Learning Resources and Student Support.

Principle 8: Public Information.

Principle 9: Ongoing Monitoring and Periodic Internal Review of Programmes.

The Principles for which substantial compliance has been achieved are:

Principle 5: Teaching Staff.

Principle 7: Information Management.

Principle 10: Regular External Evaluation of Undergraduate Programmes.

The Principles for which partial compliance has been achieved are:

None.

The Principles for which failure of compliance was identified are:

None.

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

**The members of the Accreditation Panel for the Undergraduate Programme Biology of the University of Crete**

Name and Surname

Signature

- **Prof. Dimitris Grammatopoulos (Chair)**, Warwick Medical School, Coventry, United Kingdom
- **Prof. Thimios Mitsiadis**, University of Zurich, Zurich, Switzerland
- **Dr Nicholas Ktistakis**, Babraham Institute, Cambridge, United Kingdom