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Cyprus Agency of Quality Assurance and Accreditation in Higher Education, Chair of the Council, Prof Mary Koutselini Nicosia, Cyprus

18 July 2017

Dear Professor Koutselini,

<u>Subject: MSc Data Analytics - External Evaluation Report, following 26th of June 2017 evaluation visit</u>

The UCLan Cyprus team would like to thank the external evaluation committee members for their valuable comments and suggestions towards enhancing the MSc Data Analytics programme at UCLan Cyprus. We have addressed all comments provided by the committee and we believe that the proposed recommendations have enabled us to significantly refine and strengthen the programme and its market appeal.

This document presents our responses and comments, following the structure of the external evaluation report. For ease of reference, we have copied, quoted and emphasized the recommendations of the committee for each section and we provide our responses and comments indented underneath each recommendation. We remain at your disposal for any additional clarifications necessary.

#### **INTRODUCTION**

II. The Internal Evaluation procedure

"Although Doc. Number 200.1 was initially seen as sufficiently comprehensive and detailed, during the evaluation process it became apparent that much of the information included in the document was out-of-date or had changed significantly."

**Response:** The team would like to apologize for the inconvenience caused to the committee members due to the changes made on the programme documentation prior to the validation visit.

Although UCLan Cyprus is a Cypriot private university, at the same time, it offers interuniversity programmes between UCLan Cyprus and UCLan UK and as such, it provides double awards (UCLan Cyprus and UCLan UK) to its graduates. As a result, all the programmes offered by UCLan Cyprus are validated by the quality assurance bodies of both countries. The proposed programme (MSc Data Analytics) has been validated by the staff and associate lecturers (e.g. SAS Visual Analytics training). Similar development opportunities and trainings will continue throughout the operation of the programme.

"There are strong links between UCLAN Cyprus and UCLAN UK which is beneficial to both organisations. There are clear opportunities for stronger links to be developed between this programme of study and other parts of UCLAN Cyprus. For example, there can be links to the Psychology, Sport and Wellbeing or the Business and Management School."

**Response:** We would like to inform the committee that we are currently exploring such links with other departments in the context of curriculum enhancement (e.g., real case studies) and collaborative research and innovation projects.

# 2. PROGRAM OF STUDY AND HIGHER EDUCATION QUALIFICATIONS

2.a. "Review all modules to ensure that they are streamlined. This will not only make it possible to avoid overlaps, but also leave sufficient room to develop materials horizontally (extend the scope of coverage linking to the modules), but also vertically (in terms of having more advanced and in-depth coverage)."

Response: We agree with the committee's comment. We believe that significant overlaps across modules would damage the overall student experience as they may involve the reassessment of the same learning outcomes and forcing of the student to demonstrate the same skills several times. However, small overlaps, especially ones structured in a manner where one module provides an introduction to a topic, while another delves further into the topic to provide a comprehensive understanding, can allow students to see relationships among content and gain knowledge of the fundamental principles of the curriculum. This is also one of the main reasons why we have adopted the integrated model approach when designing the curriculum, providing shared educational activities among modules (e.g., describe data, store data, analyse data, visualize data). The interdisciplinary topics presented in the curriculum are arranged around overlapping concepts (e.g., data collection, data analysis, information visualization, applications) that allow the student to revisit a topic's theoretical foundations and its practical applicability using different technologies and apply it in different contexts and settings. We believe that this approach allows students to gain a deeper, more solid understanding of a topic and its applicability as well as its relationships with other content.

2.b. "Add a module in the first instance related to the use of analytics in different applications and contexts. For instance, such a module could consider the use of analytics in business settings, e.g. when it comes to marketing/consumer behaviour, web site analytics, operation research, finance etc. or link to the institution's interest in sports science."

**Response:** We agree with the committee's recommendation that use of analytics in different applications and contexts should be highlighted in the programme. Unfortunately, during the event we were not able to fully demonstrate the depth of each module. One of the main objectives of modules CO4762-Knowledge Discovery and

- large datasets generated by the collection of both qualitative and quantitative data, including ways to visualize the results of the exploration process.
- CO4761-Business Intelligence and Data Analytics: This module studies the type of data that modern enterprise systems generate and shows how such data might be used to support decision making within an enterprise. Additionally, it conveys the importance of any type of data/information visualization and teaches different types of visualization techniques for different data types, both qualitative and quantitative.
- CO4820-Critical Analysis: This module discusses how qualitative data can be used in research. It provides the students with the knowledge and understanding of experimental design and how to construct an experiment that may involve qualitative data. Additionally, it demonstrates the correct use of numbers, maths, stats and graphs in reporting experimental results of qualitative data.
- 2.e. "Adopt a single approach to Turnitin submissions for the modules in this program, restricting submission to a single and final one. This will ensure that students are not tempted to game the system".

**Response:** We agree with the committee's recommendation and for Turnitin submissions, we have adopted a single submission approach.

- 3. RESEARCH WORK AND SYNERGIES WITH TEACHING There were no committee recommendations
- 4. ADMINISTRATION SERVICES, STUDENT WELFARE AND SUPPORT OF TEACHING WORK There were no committee recommendations
- DISTANCE LEARNING PROGRAMS Not applicable
- DOCTORAL PROGRAMS OF STUDY Not applicable

## CONCLUSIONS AND SUGGESTIONS OF THE EXTERNAL EVALUATION COMMITTEE

"After carefully considering all the facts and evidence provided to the committee as part of this evaluation, the committee believes that the curriculum needs revision before being accepted, as suggested by the recommendation made above (especially under section 2).

**Response:** We would like to thank the evaluation committee for their valuable comments and recommendations. All comments and recommendations raised by the committee were addressed and our responses are included under each comment separately.

| 1.2   | Teaching  | Rating |
|-------|---|--------|
| 1.2.1 | The methodology utilized in each course is suitable for achieving the course's purpose and objectives and those of the individual modules.  | 5      |
| 1.2.2 | The methodology of each course is suitable for adults.  | 5      |
| 1.2.3 | Continuous-formative assessment and feedback are provided to the students regularly   | 4      |
| 1.2.4 | The assessment system and criteria regarding student course performance, are clear, adequate, and known to the students.  | 5      |
| 1.2.5 | Educational activities which encourage students' active participation in the learning process, are implemented  | 5      |
| 1.2.6 | Teaching incorporates the use of modern educational technologies that are consistent with international standards, including a platform for the electronic support of learning.           | 5      |
| 1.2.7 | Teaching materials (books, manuals, journals, databases, and teaching notes) meet the requirements set by the methodology of the program's individual courses, and are updated regularly. | 4      |

"Overall, although resources appeared sufficient to support student learning it is important, given the nature of the program, that more up-to-date books are suggested and used for each module."

**Response:** The team was not able to provide the latest version of the module descriptors beforehand. The reason why this happened is thoroughly explained above in our response in section INTRODUCTION (II. The Internal Evaluation procedure). The revised module descriptors (attached in Appendix A) provide more up-to-date books for each module.

Additionally, given the rapid evolution in the area of data analytics, the team believes that it is important for books as well as any other learning material to be updated regularly. As part of the programme, by the end of each academic year, all relevant bibliography for each module is reviewed and updated whenever necessary, to reflect the latest technologies, material, and research findings in the specific area. Accordingly, in collaboration with the Library Services, appropriate student reading lists are created on each module's Blackboard space before the start of the new academic year.

| 1.3    | Teaching Personnel   | Rating |
|--------|--|--------|
| 1.3.10 | Future redundancies / retirements, expected recruitment and promotions of academic personnel safeguard the unimpeded implementation of the program of study within a five-year span. | 2      |

"Module Information Security Management appears to have only 24 hours of contact time. The program team should ensure consistency across modules."

**Response:** The reason behind the fewer number of hours for contact time is that this module dedicates more time for guided independent study and in particular for directed reading, which is used to complement and broaden the content of lectures, and to provide material for in-class discussion.

| 2.4   | Manag               | gement of the Program of Study                                | Rating |
|-------|---------------------|---|--------|
| 2.4.5 | Informa<br>include: | tion relating to the program of study are posted publicly and | Nating |
|       | 2.4.5.2             | The expected learning outcomes                                | 2      |
|       | 2.4.5.3             | The Methodology   |        |
|       | 2.4.5.4             | Course Descriptors  | 2      |
|       | 2.4.5.7             | The format and the procedures for student assessment          | 3      |
|       |                     | student assessment  | 1      |

"Public information provided on the University's web pages should have been more detailed."

**Response:** It is the University's policy that all programme related material are uploaded and made available after a programme is validated (receives final approval). The course handbook, which includes all the information referenced in sections 2.4.5.2-4 and 2.4.5.7 (i.e. learning outcomes, methodology, course descriptors). Moreover, for each module, a module handbook, which includes specific details as they relate to sections 2.4.5.2-4 and 2.4.5.7, is also made available. The module handbook also includes a more detailed lesson planning and assessment information.

## 3. RESEARCH WORK AND SYNERGIES WITH TEACHING

"The 40-40-20 workload distribution among research, teaching and service is on par with the committee expectations. The workload policy can include more effective provisions for protecting early career researchers."

**Response:** Although the University follows the general 40-40-20 workload distribution among research, teaching and administration respectively, necessary adjustments and support are provided by the School of Sciences on an individual basis, to allow academics, especially early career researchers, to further develop their careers. During their annual appraisals academics have the opportunity to discuss their workload distribution and depending on their research output and plans, they can request any further support by the School they consider necessary for their personal development as research active staff. Through the years, a number of support mechanisms were established, such as

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Cyprus Agency of Quality Assurance and Accreditation in Higher Education, Chair of the Council, Prof Mary Koutselini Nicosia, Cyprus

18 July 2017

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#### INTRODUCTION

II. The Internal Evaluation procedure

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**Response:** The team would like to apologize for the inconvenience caused to the committee members due to the changes made on the programme documentation prior to the validation visit.

Although UCLan Cyprus is a Cypriot private university, at the same time, it offers interuniversity programmes between UCLan Cyprus and UCLan UK and as such, it provides double awards (UCLan Cyprus and UCLan UK) to its graduates. As a result, all the programmes offered by UCLan Cyprus are validated by the quality assurance bodies of both countries. The proposed programme (MSc Data Analytics) has been validated by the UK Academic Standards & Quality Assurance Committee on the 30th of January 2017, after the submission of the programme documentation to the Cyprus Agency of Quality Assurance and Accreditation in Higher Education. Following the UK validation and the panel's recommendations, the team has made some changes to the proposed programme to enhance its quality. Unfortunately, according to the validation procedure protocol of the Cyprus Agency of Quality Assurance and Accreditation in Higher Education, we were not allowed to provide the committee members with the revised documentation before the validation event. For this reason, the team provided the updated version of the programme specifications and module descriptors to the committee during their validation visit on the 26th of June.

For ease of reference, the team has attached the final version of the programme structure and module descriptions in Appendix A.

"We note with concern that a number of earlier sections in the document relate and refer to UCLAN UK as opposed to UCLAN Cyprus. For instance, on pages 12, 13 and 14 this includes the list of program, regulations and procedures, annual monitoring process etc."

Response: As mentioned earlier, UCLan Cyprus offers inter-university programmes with UCLan UK and the proposed programme offers a double award between UCLan Cyprus and UCLan UK to its graduates. Consequently, both Universities, UCLan Cyprus and UCLan UK, work in accordance to the same academic regulations and follow the same academic procedures, satisfying both, the Cyprus and the UK quality assurance agencies. Thus, the submitted document included the list of programmes for both Universities (page 12) and the common regulations, procedures and annual monitoring process (pages 13-14).

#### 1. EFFECTIVENESS OF TEACHING WORK – AVAILABLE RESOURCES

"When it came to the teaching team, we were impressed by their enthusiasm and commitment. The course leader was sufficiently experienced to lead the development of the program and oversee its delivery. We note though the over reliance on a single individual and the potential impact this can have on the future and sustainability of the program."

**Response:** The current MSc Data Analytics team is composed of an interdisciplinary blend of academics from Computing, Mathematics and Business. We believe although each member provides complementary expertise to the programme, there are also important overlaps, which can accommodate for changes in the faculty in case it is required in the future.

Moreover, the School has already provisioned the expansion of the programme team. To enhance the expertise of the team, since the external evaluation visit, the team recruited one associate lecturer with expertise in applied statistics and is currently recruiting (second recruitment call) for additional members of staff with expertise in Data Mining, Business Intelligence and Analytics.

It should be noted that all the associate lecturers are hired with the potential of full employment, once the programme receives its final validation and recruits well. It is also worth mentioning that the team has already arranged for specific trainings for existing

staff and associate lecturers (e.g. SAS Visual Analytics training). Similar development opportunities and trainings will continue throughout the operation of the programme.

"There are strong links between UCLAN Cyprus and UCLAN UK which is beneficial to both organisations. There are clear opportunities for stronger links to be developed between this programme of study and other parts of UCLAN Cyprus. For example, there can be links to the Psychology, Sport and Wellbeing or the Business and Management School."

**Response:** We would like to inform the committee that we are currently exploring such links with other departments in the context of curriculum enhancement (e.g., real case studies) and collaborative research and innovation projects.

## 2. PROGRAM OF STUDY AND HIGHER EDUCATION QUALIFICATIONS

2.a. "Review all modules to ensure that they are streamlined. This will not only make it possible to avoid overlaps, but also leave sufficient room to develop materials horizontally (extend the scope of coverage linking to the modules), but also vertically (in terms of having more advanced and in-depth coverage)."

**Response:** We agree with the committee's comment. We believe that significant overlaps across modules would damage the overall student experience as they may involve the reassessment of the same learning outcomes and forcing of the student to demonstrate the same skills several times. However, small overlaps, especially ones structured in a manner where one module provides an introduction to a topic, while another delves further into the topic to provide a comprehensive understanding, can allow students to see relationships among content and gain knowledge of the fundamental principles of the curriculum. This is also one of the main reasons why we have adopted the integrated model approach when designing the curriculum, providing shared educational activities among modules (e.g., describe data, store data, analyse data, visualize data). The interdisciplinary topics presented in the curriculum are arranged around overlapping concepts (e.g., data collection, data analysis, information visualization, applications) that allow the student to revisit a topic's theoretical foundations and its practical applicability using different technologies and apply it in different contexts and settings. We believe that this approach allows students to gain a deeper, more solid understanding of a topic and its applicability as well as its relationships with other content.

2.b. "Add a module in the first instance related to the use of analytics in different applications and contexts. For instance, such a module could consider the use of analytics in business settings, e.g. when it comes to marketing/consumer behaviour, web site analytics, operation research, finance etc. or link to the institution's interest in sports science."

**Response:** We agree with the committee's recommendation that use of analytics in different applications and contexts should be highlighted in the programme. Unfortunately, during the event we were not able to fully demonstrate the depth of each module. One of the main objectives of modules CO4762-Knowledge Discovery and

CO4761-Business Intelligence and Data Analytics is to introduce students to such applications and contexts. In particular, some of the interesting materials that are covered in these modules, which consider the use of analytics in business settings, are business performance management, text mining, sentiment analysis, web analytics, social analytics, and model-based decision making.

2.c. "Develop the "Critical Analysis" module to provide a more holistic research methods experience that prepares students for undertaking projects underpinned by a wider set of methodologies. The module could then called "Research Methods".

**Response:** The main purpose of "Critical Analysis" is to provide students with a broad overview and understanding of different research methods and where they should be used. The material covered within the module provides the students with the knowledge and understanding of conducting research, reading academic literature, reproducing an experiment, and collecting and interpreting data and statistics. These skills provide the necessary breadth and depth to be utilized in a variety of project contexts and settings. The intention is also to prepare students for their research thesis project (i.e. provide them with the knowledge and understanding of all the elements included in a research thesis project).

Although we understand the committee's recommendation that perhaps "Research Methods" would be a more appropriate name, however since the module is also integrated in other post-graduate programmes, changing the module name would require approval by the external examiner of each programme as this will constitute a major change to the programme. The team can suggest this change during the next periodic course review of the relevant programmes.

2.d. "Ensure that data gathering, analysis and visualization of qualitative data and relevant methodologies are better represented across the program".

**Response:** We believe that the data gathering, analysis and visualization of qualitative data and relevant methodologies are well represented across the program. Below we outline the parts of the programme/modules that specifically represent each aspect:

- CO4759-Enterprise Data Management: This module discusses methods/techniques for designing the structures that store qualitative data. Additionally, as part of the assignment, it asks the students to develop a database that will collect, store, clean and transform qualitative data and perform descriptive analytics on them. It also provides the students with the knowledge and understanding of conceptual design of databases including visualization of data structures and their relationships.
- CO4760-Exploratory Data Analysis: This module discusses methods/techniques that allow exploration of dataset of both qualitative and quantitative data. Additionally, it provides the users with the skills to visualise such data in R.
- CO4762-Knowledge Discovery: This module provides the students with the knowledge and understanding of a range of methods/techniques used to mine

- large datasets generated by the collection of both qualitative and quantitative data, including ways to visualize the results of the exploration process.
- CO4761-Business Intelligence and Data Analytics: This module studies the type of data that modern enterprise systems generate and shows how such data might be used to support decision making within an enterprise. Additionally, it conveys the importance of any type of data/information visualization and teaches different types of visualization techniques for different data types, both qualitative and quantitative.
- CO4820-Critical Analysis: This module discusses how qualitative data can be used
  in research. It provides the students with the knowledge and understanding of
  experimental design and how to construct an experiment that may involve
  qualitative data. Additionally, it demonstrates the correct use of numbers, maths,
  stats and graphs in reporting experimental results of qualitative data.
- 2.e. "Adopt a single approach to Turnitin submissions for the modules in this program, restricting submission to a single and final one. This will ensure that students are not tempted to game the system".

**Response:** We agree with the committee's recommendation and for Turnitin submissions, we have adopted a single submission approach.

- 3. RESEARCH WORK AND SYNERGIES WITH TEACHING There were no committee recommendations
- 4. ADMINISTRATION SERVICES, STUDENT WELFARE AND SUPPORT OF TEACHING WORK

  There were no committee recommendations
- 5. DISTANCE LEARNING PROGRAMS
  Not applicable
- DOCTORAL PROGRAMS OF STUDY Not applicable

## CONCLUSIONS AND SUGGESTIONS OF THE EXTERNAL EVALUATION COMMITTEE

"After carefully considering all the facts and evidence provided to the committee as part of this evaluation, the committee believes that the curriculum needs revision before being accepted, as suggested by the recommendation made above (especially under section 2).

**Response:** We would like to thank the evaluation committee for their valuable comments and recommendations. All comments and recommendations raised by the committee were addressed and our responses are included under each comment separately.

"The committee would like to note that the frequent changes of the documentation at very short notice including during the evaluation visit and even after. This made the committee work very challenging."

**Response:** The reason why this happened is thoroughly explained above in our response in section INTRODUCTION (II. The Internal Evaluation procedure).

"We were also concerned that information requested before the visit about assessment and feedback was not fulfilled."

**Response:** Prior to the visit the team received an email requesting to have the following available during the visit: assignment brief given to the students, marks awarded and feedback provided, for one core and two elective modules, as well as 6-7 dissertations and the feedback/grades. The team collected the requested material and had it ready and available during the validation visit. We were expecting the committee to call us back after their meeting with the students and administrative staff to provide the information, but unfortunately, this was not the case. Although we refrain from sending these out due to student privacy regulations, we have sent one anonymized sample thesis (marked with feedback) to the committee through email, right after the visit.

Also, as it is indicated in pages 5 and 6 of the report, the rest of the requested documents (student handbook, teaching and learning policies, staff-student liaison committee meeting minutes, and programme team research interests), were provided electronically along with additional documentation requested during the visit.

### **QUALITY STANDARDS AND INDICATORS**

## 1. EFFECTIVENESS OF TEACHING WORK – AVAILABLE RESOURCES

| 1.1    | Organization of teaching work  | Rating |
|--------|--|--------|
| 1.1.11 | The program of study applies an effective policy for the prevention and detection of plagiarism. | 3      |

<sup>&</sup>quot;Overall, we had a positive view of the way teaching has been organized with the exception of offering students the opportunity to submit their work to Turnitin multiple times. This makes it possible for them to game the system. The committee recommends using a consistent approach in all modules when it comes to Turnitin submissions and have a single submission. The regulations provided were those of UCLAN UK."

**Response:** As already mentioned in our response in section 2, the Team is in agreement with the committee's suggestion. Single submissions through Turnitin are incorporated in all programme modules.

| 1.2   | Teaching  | Rating |
|-------|---|--------|
| 1.2.1 | The methodology utilized in each course is suitable for achieving the course's purpose and objectives and those of the individual modules.  | 5      |
| 1.2.2 | The methodology of each course is suitable for adults.  | 5      |
| 1.2.3 | Continuous-formative assessment and feedback are provided to the students regularly   | 4      |
| 1.2.4 | The assessment system and criteria regarding student course performance, are clear, adequate, and known to the students.  | 5      |
| 1.2.5 | Educational activities which encourage students' active participation in the learning process, are implemented  | 5      |
| 1.2.6 | Teaching incorporates the use of modern educational technologies that are consistent with international standards, including a platform for the electronic support of learning.           | 5      |
| 1.2.7 | Teaching materials (books, manuals, journals, databases, and teaching notes) meet the requirements set by the methodology of the program's individual courses, and are updated regularly. | 4      |

"Overall, although resources appeared sufficient to support student learning it is important, given the nature of the program, that more up-to-date books are suggested and used for each module."

**Response:** The team was not able to provide the latest version of the module descriptors beforehand. The reason why this happened is thoroughly explained above in our response in section INTRODUCTION (II. The Internal Evaluation procedure). The revised module descriptors (attached in Appendix A) provide more up-to-date books for each module.

Additionally, given the rapid evolution in the area of data analytics, the team believes that it is important for books as well as any other learning material to be updated regularly. As part of the programme, by the end of each academic year, all relevant bibliography for each module is reviewed and updated whenever necessary, to reflect the latest technologies, material, and research findings in the specific area. Accordingly, in collaboration with the Library Services, appropriate student reading lists are created on each module's Blackboard space before the start of the new academic year.

| 1.3    | Teaching Personnel   | Rating |
|--------|--|--------|
| 1.3.10 | Future redundancies / retirements, expected recruitment and promotions of academic personnel safeguard the unimpeded implementation of the program of study within a five-year span. | 2      |

"Although we note the competence and enthusiasm of the program leader, the committee has deep concerns of over-reliance on a single individual for the management and delivery of the program."

**Response:** This was addressed in our response to the first comment under the section "Effectiveness of Teaching Work- Available Resources". The School has already provisioned the expansion of the program team.

## 2. PROGRAM OF STUDY AND HIGHER EDUCATION QUALIFICATIONS

| 2.2   | Structure and Content of the Program of Study   | Rating |
|-------|---|--------|
| 2.2.5 | The program, in addition to the courses focusing on the specific discipline, includes an adequate number of general education courses.  | 1      |
| 2.2.6 | The content of courses and modules, and the corresponding educational activities are suitable for achieving the desired learning outcomes with regards to the knowledge, skills, and abilities which should be acquired by students | 3      |
| 2.2.7 | The number and the content of the program's courses are sufficient for the achievement of learning outcomes.  | 3      |

"Although the program overall, meets the majority of the objectives related to the data analytics, objectives related to the application of the analytics are not fully catered for."

**Response:** This comment has already been addressed in the response of recommendation 2.b.

"The list of electives was not fully-justified and missed an opportunity to extend the program in a meaningful way. For instance, the electives list can include modules in the following areas: marketing, operations research, management and finance."

Response: The Team is happy to further investigate the list of electives that can be offered as part of the programme. We believe that it will be more productive and effective to do so at a later stage, after the programme starts running. More specifically, as with all our programmes, we systematically review our programmes following feedback from students, faculty, external examiners and other stakeholders, e.g. professional bodies, as well as new trends in the field of study, and thus, we continuously refine the structure, learning methodologies and assessment techniques in line with QA policies and best practise. This will also provide the team with time to reflect upon the operation of the programme and student learning experience, so that a more focused decision can be made on the need for new elective modules.

"Module Information Security Management appears to have only 24 hours of contact time. The program team should ensure consistency across modules."

**Response:** The reason behind the fewer number of hours for contact time is that this module dedicates more time for guided independent study and in particular for directed reading, which is used to complement and broaden the content of lectures, and to provide material for in-class discussion.

| 2.4   | Manag       | ement of the Program of Study                                 | Rating |
|-------|-------------|---|--------|
| 2.4.5 | Information | tion relating to the program of study are posted publicly and |        |
|       | 2.4.5.2     | The expected learning outcomes                                | 3      |
|       | 2.4.5.3     | The Methodology   | 2      |
|       | 2.4.5.4     | Course Descriptors  | 3      |
|       | 2.4.5.7     | The format and the procedures for student assessment          | 1      |

"Public information provided on the University's web pages should have been more detailed."

**Response:** It is the University's policy that all programme related material are uploaded and made available after a programme is validated (receives final approval). The course handbook, which includes all the information referenced in sections 2.4.5.2-4 and 2.4.5.7 (i.e. learning outcomes, methodology, course descriptors). Moreover, for each module, a module handbook, which includes specific details as they relate to sections 2.4.5.2-4 and 2.4.5.7, is also made available. The module handbook also includes a more detailed lesson planning and assessment information.

## 3. RESEARCH WORK AND SYNERGIES WITH TEACHING

"The 40-40-20 workload distribution among research, teaching and service is on par with the committee expectations. The workload policy can include more effective provisions for protecting early career researchers."

**Response:** Although the University follows the general 40-40-20 workload distribution among research, teaching and administration respectively, necessary adjustments and support are provided by the School of Sciences on an individual basis, to allow academics, especially early career researchers, to further develop their careers. During their annual appraisals academics have the opportunity to discuss their workload distribution and depending on their research output and plans, they can request any further support by the School they consider necessary for their personal development as research active staff. Through the years, a number of support mechanisms were established, such as

mentoring of early career researchers by experienced researchers, and organization of general as well as discipline-specific research related seminars, conferences and trainings (e.g., proposal writing trainings, research networking). In addition to the overall university support staff for research and academic purposes, the School also has a dedicated Academic and Research Support Assistant, which has been shown to be extremely beneficial for early career researchers and newly appointed staff.

"The research methods module could have been more holistic and comprehensive when it came to qualitative data and associated methods."

**Response:** This comment has been partially addressed in the response of recommendation 2.c. We acknowledge that due to limited time during the validation event we were not able to fully communicate that the content of the module includes sufficient material to qualitative data understanding and associated analysis methods and techniques.

## FINAL REMARKS - SUGGESTIONS

None

We would like to take this opportunity again to thank the external evaluation committee members for their valuable and constructive comments and suggestions towards enhancing the MSc Data Analytics programme at UCLan Cyprus. We feel that we are fully equipped to grow the course and enhance the positioning of our School, UCLan Cyprus and Cyprus as international education hub.

We remain at your disposal for any further questions and clarifications, in relation to our responses.

Yours sincerely,

Professor Irene Polycarpou, Head of School of Sciences Assistant Professor Panayiotis Andreou, Director of MSc Data Analytics.

Professor Panikkos Poutziouris Acting Rector, UCLan Cyprus

Cc: Mr Floros Voniatis Chair, UCLan Cyprus Council