

Doc. 300.1.2

Date: 01/07/2019

# Higher Education Institution's response

- **Higher education institution:**

Neapolis University

- **Town:** Pafos

- **Program of study (Name, ECTS, duration, cycle)**

**In Greek:** Μεταπτυχιακό στην Ανθεκτικότητα Κατασκευών σε Ακραίες Συνθήκες Φόρτισης: Πυρκαγιά, Έκρηξη, Σεισμός/90 ECTS/ 1 η 1.5 ακαδημαϊκό έτος/Μεταπτυχιακό

**In English:** MSc in Structural Robustness for Extreme Loading Conditions: Fire, Explosion, Earthquake/90 ECTS/ 1 or 1.5 academic year /Postgraduate

- **Language of instruction:** English

- **Program's status:** New Program

**The present document has been prepared within the framework of the authority and competencies of the Cyprus Agency of Quality Assurance and Accreditation in Higher Education, according to the provisions of the “Quality Assurance and Accreditation of Higher Education and the Establishment and Operation of an Agency on Related Matters Laws of 2015 and 2016” [N. 136 (I)/2015 and N. 47(I)/2016].**

## **A. Guidelines on content and structure of the report**

- *The Higher Education Institution based on the External Evaluation Committee’s evaluation report (Doc.300.1.1) must justify whether actions have been taken in improving the quality of the Program of study in each assessment area.*
- *All comments, observations, and recommendations of the EEC have to be answered.*
- *The structure of the response has to follow the systematic recording of the comments, observations, and recommendations of the EEC and the response of the institution after each of the EEC’s comments.*

First of all, we hereby express our gratitude to the EEC for the very positive evaluation of the program, which has resulted to an average of **8.48/10**. Additionally, in the Conclusions it is stated:” *The proposed program meets the requirements in terms of teaching and learning objectives, capacity of staff and resources. The proposed program is well-suited to cover a highly specialized, yet timely topic that is rarely available among international civil engineering programs. We see this as an added value to the School and the University in general.* “

In any case, we always claim that there is room for improvement, thus, we hereby submit the NUP responses in order to FULLY comply with the EEC suggestions and the recommendations.

## 1. Study Program and study Program’s design and development (ESG 1.1, 1.2, 1.8, 1.9)

EEC Remark 1.           Next steps should be taken for disseminating the Program

### **Corrective Action Implemented: Done.**

Since the Program will be officially approved by CYQAA, it will be officially advertised both in Cyprus and abroad (initially including Greece, United Kingdom, Italy, Germany, Portugal, France, Jordan, Israel, Russia and China, with possibility of further extending the advertisement to other Countries.

Furthermore, since the programme is accredited, the teaching material along with all the relevant information (teaching staff, admission procedures, etc) is immediately forwarded to the appropriate operational units (registry, students affairs, marketing, industry liaison office, distance learning) and administrative departments as well (financial, Campus management, Erasmus office, EU projects office, etc) for dissemination, support and marketing purposes.

EEC Remark 2.           A procedure should be in place for including an activity on practical training (internship) that is linked to the program. This would offer the opportunity for working professionals to expand their knowledge base, recruited international students to gain practical knowledge by exploiting the time between lectures (lectures are limited during the weekend)

### **Corrective Action Implemented: Done.**

An “**elective internship period**” has been conceived within the two courses on Earthquake Engineering (SRELC503 and SRELC506), that will replace the work assignments for those students, who will ask for the internship. The assessment of this internship will count for the 30% of the final grade, having the same weight as the (alternative) work assignments. (**see Annex1, Revised Study Guide, Syllabus SRELC503, chapt 14, Syllabus SRELC506, chapt 14**).

EEC Remark 3.           Elaboration is needed in terms of the following learning goals:

- a.           An in-depth understanding of methodological approaches, tools and techniques to be used for decision making and design of structures for “structural robustness”, so as to enable graduates to work as expert professionals.

- b. The ability to critically evaluate new technological developments in the area of protection of structures and infrastructures to accidental/extreme loading conditions.
- c. The ability to use effectively qualitative and quantitative techniques and methods, computer programs and information technologies in order to carry out analytical tasks involved in structural assessment under extreme loading conditions.

### **Corrective Action Implemented:**

#### **For point a. Done.**

Case studies have been incorporated into the courses; practical training and homework assignment is part of the assessment methods now incorporated; group work has been enhanced; assignments have been elaborated; a detailed mapping of PLOs and CLOs has been incorporated into the Program Study Guide. The Program is practice oriented and the Teaching Staff is composed by a group of Faculties having not only outstanding academic career records, but also extraordinary relevant professional experience at national and international level. So, the combination of Science and Practice will result in the optimal mix for achieving the aforementioned learning goals. **“Understanding of methodological approaches, tools and techniques”** will be achieved by analyzing in the class, together with the students, “Case Studies” taken from Practical Experience of the Teachers, who will explain how they approached the problem, the techniques adopted to solve it, the tools that were adopted, possibly with a discussion of possible alternatives

#### **For point b. Done.**

Related work features have been incorporated in the revised syllabi. **The critical evaluation of “new technological developments”** is achieved thanks to the information that is given with regard to “novel technologies and advanced scientific concepts” that have been incorporated in the actual courses’ offer (e.g. in week 7 of course SRELC506 concepts of “Earthquake protection of content and installations in structures, appendices and attachments. Displacement and acceleration sensitive units” are presented, with clear focus on “Base Isolation Concepts”.

#### **For point c.**

**Done.** The **“ability to use effectively qualitative and quantitative techniques and methods, computer programs and information technologies”** is developed by the students when carrying out the homework assignments, applying on the assigned case studies that have been incorporated, under the supervision of the Instructors, advanced numerical modelling and software analysis tools (e.g. ABAQUS, ANSYS or similar).

For the above points see ***Annex 1, Revised Program Study Guide, chapt. 6***, showing a mapping of the PLOs in correlation with the CLOs as well as of each CLOs with each teaching week/course.

- EEC Remark 4. Should the possibility exist for the program to expand in the future (also based on international acclaim), a number of electives, further covering fundamental concepts (such as nonlinear analysis, or random processes) should be included in the course offerings.

**Corrective Action Implemented:** No immediate action is requested. This recommendation will be implemented depending on the “success” and acceptance that the Program will meet and on the number of students that will be attained, the Program will be expanded in terms of courses’ offer, including a number of elective courses, covering other extreme loading conditions and/or

fundamental concepts such as, for example, advanced numerical modelling techniques and random processes, as suggested by EEC.

EEC Remark 5. For every course, a clear definition of the “written assignment” - graded at 30% of the final grade - should be offered.

**Corrective Action Implemented: Done.**

For every course a clear definition of the “written assignment” - graded at 30% of the final grade - has been given. (*see Annex1, revised Study guide, chapt. 14, Courses Syllabi*)

EEC Remark 6. The possibility to carry out the thesis within the summer months should be considered.

**Corrective Action Implemented: Done.**

The possibility to carry out the thesis within the summer months is considered for those students willing to accomplish their studies within a two semesters period (*see Annex 1, Revised Study Guide, chapt 5.5*)

EEC Remark 7. We recommend that teaching materials are made publically available in due time and well-ahead the initiation of the program.

**Corrective Action Implemented: Done.**

The teaching material is available to the students in due time and well-ahead the initiation of each semester (*see answer above, Remark 1, 1.2*)

EEC Remark 8. Considering incorporating elements relating to novel technologies or advanced scientific concepts in an updated revision, or in a possible future extension of the program.

**Corrective Action Implemented: Done.**

Novel technologies and advanced scientific concepts are incorporated.

**See Annex 1:** Revised Study Guide, Chapt. in week 7 of course SRELC506 concepts of “Earthquake protection of content and installations in structures, appendices and attachments. Displacement and acceleration sensitive units” are presented, with clear focus on “Base Isolation Concepts”.

EEC Remark 9. Admission requirements in the form of prerequisites should be defined, as described in the previous section.

**Corrective Action Implemented: Done.**

As per the EEC recommendation, admission requirements in the form of prerequisites have been defined in the case of students who lack the necessary background knowledge. In particular, this applies in the case of Bachelor’s student recruited from international programs, which might lack of a common background on specific topics, such as structural dynamics and advanced numerical analysis methods. Prerequisites were defined in at least one course on structural dynamics and one course on numerical analysis methods. Conditional admission will be considered, for those

students not meeting the Prerequisites, with the obligation to register to the pertinent Bachelors' courses. **(See Annex 1, Revised Study guide, par. 4.1.2)**

## 2. Teaching, learning and student assessment (ESG 1.3)

EEC Remark 1. A clear policy should be specified in terms of interaction with the students.

### Corrective Action Implemented: Done.

1. A clear policy already exists within NUP Quality Assurance framework. **See Annex 4: Working Methodology Document for Teaching Staff on Interaction between Students, Students, students and study guides, including assignments.**
2. Teaching and learning methodology has been incorporated into the revised Study Guide. **See Annex 1, Revised Study Guide, : Par. 8.**
3. In addition to the above we hereby list a series of existing practice that enhance interaction with students:
  - Instructor feedback is provided either electronically, through the course support platform (Moodle), or printed with comments, corrections, and enhancements. Students also have the opportunity to meet the course instructors during their office hours to get answers about the course and discuss lectures.
  - The instructor's office hours are posted in a clear spot near his office and form an established process supporting learning in the Neapolis University. Instructors are also required to notify students about their office hours through the course syllabus provided at the beginning of each semester. Academic support to students is further enhanced by possible communication beyond the regular hours either by telephone, electronically or in person, within the framework of the "open door" policy.
  - An important statute of academic support is that of the **Academic Personal Advisor**, who monitors the academic progress of students from the first days of the course, and provides counseling and guidance on any academic issue arising during their studies. Each student is assigned an advisor, responsible for assisting the student in defining and developing realistic educational goals, in keeping with his/her abilities, skills, interests, and career aspirations. All students (conventional and distance) have their own Academic Advisor who is shown on Moodle. Advisors are also responsible for ensuring the student is aware of university regulations and policies. Students are encouraged to contact their advisor at any time during the academic year. (**See Annex 2, Personal advisor NUP Policy, 07.300**)

EEC Remark 2. The mechanisms of formative feedback throughout the semester should be made explicit.

**Corrective Action Implemented: Done.** Formative assessment has been incorporated into the revised Study Guide and syllabi have been revised accordingly to include homework assignments, group projects, case studies analysis and presentations, examples and exercises for the verification and self-assessment, internship. See:

- **Annex 1: Sect. 9.**
- **Annex 4: Working Methodology Document for Teaching Staff on Interaction between Students, Students, students and study guides, including assignments.**
- **Annex 1, Revised Study Guide, chapt 6, PLO7.**

EEC Remark 3. The teaching materials and notes should be made available to the students at least a week before the lecture.

**Corrective Action Implemented: Done.**

The teaching material is available to the students in due time and well-ahead the initiation of each semester (*see answer above 1.1.2*)

EEC Remark 4. This course is by default more practice oriented. We see the offering of fundamentals as censorious, while the continuous updating on the basis of latest research is secondary at this stage.

**Corrective Action Implemented: Done.**

- Internship has been incorporated as part of the assessment.
- Case studies, group work and additional forms of assessments and student activities have been incorporated to enhance the offering of fundamentals
- Novel technologies and advanced scientific concepts are already present in the actual courses' offer (e.g. in week 7 of course SRELC506 concepts of "Earthquake protection of content and installations in structures, appendices and attachments. Displacement and acceleration sensitive units" are presented, with clear focus on "Base Isolation Concepts"). Other more detailed examples of courses, where novel technologies and advanced scientific concepts are dealt with, within the program, can be found in the table presented in

***Annex 1, Revised Study Guide, chapt. 6 Program's structure and chapt. 13, revised Syllabi.***



### 3. Teaching Staff (ESG 1.5)

EEC Remark 1. Minor Comment: Ensuring added complementary expertise in the particular areas of risk and vulnerability assessment, may be advantageous.

**Corrective Action Implemented: Done.**

In the specific course SRELC508 - Risk Engineering & Risk Management - a number of seminars of experts in the fields of risk and vulnerability assessment as well as in the emergency management is considered (*see Revised Study Guide, chapt. 13, Courses Syllabi*), e.g. “invited seminars” by experts of the Civil Protection and of the Fire Department.

#### 4. Students (ESG 1.4, 1.6, 1.7)

EEC Remark 1. Admission requirements in the form of prerequisites should be defined.

**Corrective Action Implemented: Done.**

Admission requirements in the form of prerequisites have been defined in the case of students, who lack the necessary background knowledge. In particular, this applies in the case of Bachelor's student recruited from international programs, which might lack of a common background on specific topics, such as structural dynamics and advanced numerical analysis methods. Prerequisites were defined in at least one course on structural dynamics and one course on numerical analysis methods. Conditional admission will be considered, for those student not meeting the Prerequisites, with the obligation to register to the pertinent Bachelors' courses. **(See Annex 1, Revised Study Guide, chapt. 4.1.2)**

EEC Remark 2. A clear policy should be specified in terms of interaction with the students.

**Corrective Action Implemented: Done.**

See previous response to EEC **Remark 1, at section 2, "Teaching, learning and student assessment" of this document.**

EEC Remark 3. It should be ensured that full-time students recruited from abroad are engaged in activities throughout their study program (e.g. internship, organized group study activities, journal clubs, voluntary project-work).

**Corrective Action Implemented: Done.**

An "elective internship period" has been conceived within the two courses on Earthquake Engineering (SRELC503 and SRELC506). **See Annex1, Revised Study Guide, Syllabus SRELC503, chapt 14, Syllabus SRELC506, chapt 14).**

## 5. Resources (ESG 1.6)

EEC Remark 1. Improvement of the limited current capacity of the library via extension of available textbook/reference book titles (hardcopies).

### **Corrective Action Implemented: Done.**

More than 100 hardcopies of textbooks/ reference books related to the topics of Structural Robustness, Fire Protection and Fire Response of Structures, Earthquake Engineering and Earthquake Design of Structures, Strengthening and Retrofitting of Existing Structures, Structural Response to Blast, Explosions and/or Impacts have already been ordered by the NUP Library.

**See Annex 3: Order**

EEC Remark 2. Extension of electronic subscriptions for related publishers, such as Elsevier (which at the moment is not in the list of subscriptions).

### **Corrective Action Implemented: Done.**

NUP Library, has access in more than **4000 titles of journals of Elsevier data base related to the Program's topics. See Annex 6: Indicative list of Elsevier related journals.**

EEC Remark 3. Adoption of in-class demonstration tools that promote iterative learning (Mola Kit)

### **Corrective Action Implemented: Done.**

A new "Mola Kit" is already purchased for teaching purposes. Furthermore, NUP has already a full equipped Civil Engineering Laboratory encompassing a **Shake Table device, as well as Testing Machines allowing compression, tension, bending and shear tests** to be carried out on small scale specimens for teaching purposes.

**See Annex 5: Order.**

## 6. Additional for distance learning Programs (*ALL ESG*)

## 7. Additional for doctoral Programs (*ALL ESG*)

## 8. Additional for joint Programs (*ALL ESG*)

## B. Conclusions and final remarks

## C. Higher Education Institution academic representatives

<i>Name</i>	<i>Position</i>	<i>Signature</i>
<b>Professor Pantelis Sklias</b>	Rector	
<b>Dr. Georgia Christou</b>	Head of Quality Assurance Department	

Date: 1/7/2019