





# Erasmus+ CBHE Project 586452-EPP-1-2017-1-2017-1-IT-EPPKA2-CBHE-SP

On-line Quality Assurance and EUR-ACE Accreditation of Engineering Programmes in Mediterranean Area MEDACCR

Survey on Quality Assurance and Accreditation in Partner Countries

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# Survey on Quality Assurance and Accreditation in Partner Countries

# Aim of the Survey

The wider objective of MEDACCR project is to promote the adoption of the EUR-ACE system for the accreditation of Engineering Study Programmes (ESPs) and the identification/creation of national Accreditation Centers (ACs) in the Partner Countries (PCs), namely Algeria, Jordan and Tunisia, thus providing a significant contribution to the implementation of the Bologna process in the South Mediterranean Area.

The EUR-ACE system is run by the *European Network for Accreditation of Engineering Education* - ENAEE (<a href="www.enaee.eu">www.enaee.eu</a>). EUR-ACE (EURopean ACcredited Engineer) label is the label awarded to accredit ESPs at Bachelor and Master level by national Accreditation Agencies authorized by ENAEE.

The aim of the present survey is to gather the information on the models of Quality Assurance (QA) and on the standards and processes for the accreditation of ESPs in the PCs and/or in the Universities partners of the MEDACCR project. The document *Survey on Quality Assurance and Accreditation in Partner Countries* will constitute the main outcome of "WP.1 - Survey on QA and Accreditation in PCs" of the project.

The knowledge of the QA models and of the accreditation standards and processes is essential in order to define standards and guidelines for accreditation of ESPs in PCs consistent with the PCs' requirements and, of course, with the EAFSG. The document *Standards and Guidelines for Accreditation of ESPs* will constitute the main outcome of "WP.2 - Standards and Guidelines for Accreditation" of the project.

Universities of the PCs involved in MEDACCR project are asked to fill in the survey with the required information and to transmit the filled in document to the Applicant by the end of next August (31 August 2018).

The survey must be filled in by each University of the PCs, but if in some PCs the QA model and/or the accreditation processes are the same for all the Universities involved in the project, the survey can be fill in by only one University, in agreement with all the other involved Universities of the PC.

#### 1. General information

INSTITUTION	ACRONYM	CITY	COUNTRY
ECOLE NATIONALE POLYTECHNIQUE DE CONSTANTINE	ENPC	Constantine	Algeria
ECOLE NATIONALE POLYTECHNIQUE D'ORAN	ENPO	Oran	Algeria
PRINCESS SUMAYA UNIVERSITY OF TECHNOLOGY	PSUT	Amman	Jordan
JORDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY	JUST	Irbid	Jordan
UNIVERSITE' DE TUNIS, ECOLE NATIONALE SUPERIEURE D'INGENIEURS DE TUNIS	ENSIT	Tunis	Tunisia
UNIVERSITE' DE SOUSSE	USTN	Sousse	Tunisia
UNIVERSITE' DE MONASTIR	UMTN	Monastir	Tunisia

#### **ALGERIA**

The workload is measured in credits. Within the ENPO, 120 ECTS credits are required for a Bachelor Degree and 180 ECTS credits for a Master Degree. 1 credit is measured in 12 h and 30 m.

Universities need an authorization by a competent structure. The structure is the Ministry (CN/DGEFS/MESRS - COMITE PEDAGOGIQUE NATIONAL SECTION SCIENCES ET TECHNIQUE / (CPNE ST MINISTERE DE L'ENSEIGNEMENT SUPERIEUR ET DE LA RECHRECHE SCIENTIFIQUE)

There are conditions to be fulfilled in order to be authorized to offer ESPs.

Conditions to ENPO are: filling in the canvas of the MESRS and following the conditions imposed by MESRS:

# Arrêté 711 du 03 novembre 2011

(https://www.mesrs.dz/documents/12221/18012/Arrete+711+du+03+novembre+2011+fr.pdf/a0e 6186f-a857-428c-84e0-c062b6dbb407)- ANNEX C.

### 1st cycle (L1-L2) socle commun domaine ST

(https://www.mesrs.dz/documents/12221/519571/Socle+commun+domaine+ST+-+Arret%C3%A9%20n%C2%B0496+du+28+juillet+2013.pdf/9efffd0e-809e-4edf-81e0-70f328a5d6bb) – ANNEX D.

2nd cycle (Ingineering/Master Degrees) engineering and master formation

(https://www.mesrs.dz/documents/12221/18012/Arrete+715+du+03+novembre+2011+fr.pdf/69 9fd405-620c-4a9b-891c-ff19e719d09a) — ANNEX E.

Conditions to ENPC are not explicit, They depend on the members of the CPNE ST. But normally conditions are based on: human resources equipments students workload Basically it depends on the number and quality of staff, on the available space and on the availability of laboratory equipments.

There is a national model of QA of ESPs that must be adopted by all the Universities that is available at: <a href="http://www.ciaqes-mesrs.dz/index.php">http://www.ciaqes-mesrs.dz/index.php</a> <a href="http://www.ciaqes-mesrs.dz/index.php">http://www.ciaqes-mesrs.dz/index.php</a> <a href="http://www.ciaqes-mesrs.dz/ocumentation/RNAQES%20Réd%20Ar-Fr%202%20sans%20photos.pdf">http://www.ciaqes-mesrs.dz/index.php</a> <a href="http://www.ciaqes-mesrs.dz/index.php">http://www.ciaqes-mesrs.dz/index.php</a> <a href="http://www.ciaqes-mesrs.dz/index.p

Universities/ ESPs have defined model of QA of iESPs only at ENPO. Guidelines are available at: <a href="http://www.ciaqes-mesrs.dz/documentation/RNAQES%20R%C3%A9d%20Ar-Fr%202%20sans%20photos.pdf">http://www.ciaqes-mesrs.dz/documentation/RNAQES%20R%C3%A9d%20Ar-Fr%202%20sans%20photos.pdf</a> – ANNEX F.

The main differences between the national model or the model of QA defined and/or adopted by the University/the ESPs and the ENAEE QA standards and guidelines described in § 2.4 Programme Management of the EAFSG:

Algerian National model of Quality Assurance defined by CIAQES/MESRS: (<a href="http://www.ciaqes-mesrs.dz/documentation/RNAQES Réd Ar-Fr 2 sans photos.pdf">http://www.ciaqes-mesrs.dz/documentation/RNAQES Réd Ar-Fr 2 sans photos.pdf</a>)— ANNEX F.

The 07 fields developed in the document CIAQES-QA pgs 9-12, concerning the university training area (Domaine de formation (F1-F7)) are similar to the five standards in the EAFSG document (2-4 PROGRAMME MANAGEMENT pg 9-10). It remains for us to redefine them according to ESG standards and guidelines for the process of accreditation according to EUR-ACE.

A national accreditation of ESPs does not exist.

The ESPs are not accreditated by a private Agency

#### **JORDAN**

The workload is measured in credits. 160 ECTS credits are required for a Bachelor Degree and 34 ECTS credits for a Master Degree. 1 credit is measured in 16 h.

Universities need an authorization by a competent structure to offer ESPs. The structure is the Ministry of Higher Education & Scientific Research and Higher Education Accreditation Commission Jordanian Accreditation & Quality Assurance Commission for Higher Education Institutions (AQACHEIS)

There are conditions to be fulfilled in order to be authorized to offer ESPs:

The general framework for the regulations and standards for individual major accredition of applied majors/ bachelor program in universities and university colleges operating in the hashemite kingdom of jordan no. (7) of (2010) <a href="http://www.mohe.gov.jo/en/pages/Legislations.aspx">http://www.mohe.gov.jo/en/pages/Legislations.aspx</a> – ANNEX G1-7.

There isn't any national model of QA of ESPs that must be adopted by all the Universities.

Universities ESPs have defined and/or adopted a model of QA of ESPs. it is available at <a href="http://www.abet.org/accreditation/accreditation-criteria/criteria-for-accrediting-engineering-programs-2018-2019/">http://www.abet.org/accreditation/accreditation-criteria/criteria-for-accrediting-engineering-programs-2018-2019/</a>— ANNEX H.

The main differences between the national model or the model of QA defined and/or adopted by the University/the ESPs and the ENAEE QA standards and guidelines described in § 2.4 Programme Management of the EAFSG:

ABET adopts outcomes-based accreditation criteria, divided into two sets: general criteria and program-specific criteria. The general criteria apply to all programs, and contain the majority of requirements that must be met. Program criteria apply only to specific programs, and contain areas of additional knowledge and skills critical to the particular program of study. Both ENAEE and ABET systems insure international recognition of educational programs and engineering qualifications by means of mutually approved accreditation and certification criteria and procedures. They are similar as regards outcome-based accreditation procedures and programme assessment. On the other hand, ABET looks closer to the faculty (workload, development, hiring procedures, ...).

The following table shows the similarities corresponding to both systems:

ENAEE QA standards and guidelines	ABET criteria		
2.4.1 Programme Aims	General Criterion 2: <u>Program Educational</u> <u>Objectives</u>		
2.4.2 <u>Teaching and Learning Process</u>	General Criterion 3: <u>Student Outcomes</u>		
2.4.3 <u>Resources</u>	General Criterion 5: <u>Curriculum</u> General Criterion 6: <u>Faculty</u> General Criterion 7: <u>Facilities</u> General Criterion 8: <u>Institutional Support</u>		
2.4.4 Student admission, transfer, progression and graduation	General Criterion 1: <u>Students</u>		
2.4.5 Internal Quality Assurance	General Criterion 4: Continuous Improvement		

There is a national accreditation system of ESPs and it is compulsory

The structure in charge of the definition of the national standards or requirements for the accreditation of ESPs id s the Jordanian Accreditation & Quality Assurance Commission for Higher Education Institutions (AQACHEIS).

The structure in charge of the definition of the requirements of the accreditation process is the Jordanian Accreditation & Quality Assurance Commission for Higher Education Institutions (AQACHEIS).

The structure in charge of the accreditation of ESPs the Jordanian Accreditation & Quality Assurance Commission for Higher Education Institutions (AQACHEIS).

Standards or requirements for the accreditation of ESPs are available in ANNEX A.

National requirements of the accreditation process are available in ANNEX B.

The ESPs are not accreditated by a private Agency.

#### **TUNISIA**

The workload is measured in credits only at ENSIT. 180 ECTS credits are required for a Master Degree. 1 credit is measured in 15 h.

Universities need an authorization by a competent structure to offer ESPs. The structure is the Ministry of Higher Education and Scientific Research - General Directorate of Technological Studies.

There are conditions to be fulfilled in order to be authorized to offer ESPs:

**UMTN:** A public engineering school is created by an official ministerial decree. Before the publication of this decree, a commission of the General Directorate of Technological Studies of the Ministry of Higher Education studies the application file of the institution that wishes to create an engineering school or a engineers department. The agreement is given on the basis of the institution's provision of the critical mass of the teaching staff, the necessary teaching equipment and also on the content and consistency of the training.

Students' access to engineering schools is regulated: either through national competitions (students who have completed 2 years of study in a preparatory institute) or specific competitions (students who have completed 3, 4 or 5 years of successful graduate studies) or by orientation carried out by the ministry for new bachelor students if the engineering school has an integrated preparatory cycle.

**ENSIT:** The school must justify the following:

1/ study of the labor market

2/ number of permanent teachers sufficient

3/ Scientific equipment required to satisfy the content of the training.

#### USTN:

- There must be a sufficient number of teaching and administrative staff
- Suitable premises and class rooms
- A specialty with high emloyability.

There isn't any national model of QA of ESPs that must be adopted by all the Universities.

Only ENSIT has defined and/or adopted a model of QA of ESPs. Standards and guidelines or the requirements that characterize the model of QA defined and/or adopted by the University/the ESPs: The internal quality assurance model was created in 2012 during a Tempus project. It's called AQI-UMED. It contains four areas, among which are the formation and the governace.

# I/ Field of training

- The definition of the training offer and its management
- Accompanying the student in his training
- Evaluation and revision of lessons
- Controlling students' knowledge and learning
- Orientation and professional integration
- Doctoral training
- Training throughout life

# II/ The governance

- INFORMATION SYSTEM
- CONDITIONS FOR POLICY MAKING
- ORGANIZATION AND CONTROL OF COMPONENTS AND SERVICES
- MANAGEMENT OF SUPPORT FUNCTIONS AT THE SERVICE OF MISSIONS
- QUALITY ASSURANCE
- The institution periodically organizes its self-evaluation and the review of all its activities.

The ESPs are not accreditated by a private Agency.