

# Quality Assurance Practice and Enhancement

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# **Outline**

- What is Quality Assurance (QA)?
- Practice of QA in Education
  - Practice of QA in Education in Jordan
  - Practice of QA at Philadelphia University (PU)

#### • QA process enhancement at PU

- The staff
- Curriculum design, organization, and content
- Teaching, learning, and assessment
- Student support and guidance
- Learning resources
- QA management
- QA monitoring
- e-Base room
- QA automated environment



# What is Quality Assurance (QA)?



- QA is a process driven by the need for accountability. It relates inputs to outputs, and aims at improving the impact of outputs on all stakeholders.
- QA holds the academic institution accountable to:
  - The government and/or owners of the institution as regards investment and funding.
  - The students and their parents as regards the quality of academic and professional training.

# What is Quality Assurance (QA)?



- The society and the nation as regards building the nation's human capacity, and contributing to the general welfare of society.
- The university's faculty and personnel as regards career development.



# What is Quality Assurance (QA)?

- QA also aims at:
  - Identifying the institution's strengths, weaknesses, opportunities, and threats (swot) through periodic performance assessment.
  - Measuring the degree of success in realizing the institution's objectives and the effectiveness of strategies adopted for this purpose.
  - Improving the weak points revealed by the institution's self and peer review and evaluation.



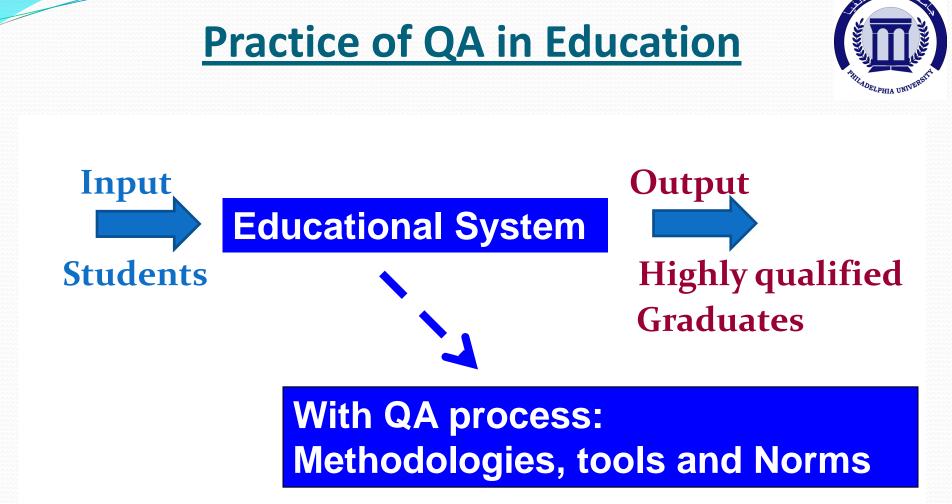
# **What is Quality Assurance QA?**

# • QA is a dual process:

## → Management process (agenda, forms, regulations, web pages, and documentation in the base-room (hard and soft copies))

# → Monitoring process

(agenda, forms, regulations, action plans, and action plan implementation and control)



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# **Practice of QA in Education**

- QA Methodologies include:
  - Building an appropriate curriculum
  - High quality of teaching and learning
  - Guidance and training
  - Learning resources
  - Assessment
  - Review and enhancement

# **Practice of QA in Education**



- QA Tools (examples):
  - Lectures, tutorials, labs, seminars, working groups (For teaching)

 $\rightarrow$  using computers, networks, others

- Self learning, e-Learning

(For learning)

→*Web-based learning centers, virtual universities,* 

(browsing websites of other universities)

- Formative, Diagnostic, Summative tests (For assessment)

→ ordinary exams ( → <u>Exam Form</u>), online assessment

# **Practice of QA in Education**



- QA norms are informed by:
- Recommendations from specialized groups (e.g., ACM/IEEE for computing (CC2005) in <u>www.acm.org/education/curric\_vols/cc2005</u>
- Benchmarking Statements <u>www.qaa.ac.uk/academicinfrastructure/benchmark/default.asp</u>
- Programme Specifications <u>www.qaa.ac.uk/academicinfrastructure/programspec/default.asp</u>
- Code of practice
- www.qaa.ac.uk/academicinfrastructure/codeOfPractice/default.asp

# **Practice of QA in Education in Jordan**



- In 2001, the Process of Academic Assessment and Quanty Assurance and Enhancement at Institutions of Higher Education in JORDAN was developed by the Ministry of Higher Education and Scientific Research (MHESR) with support from the Al-Hussein Fund for Excellence (HFE).
- This process was delivered with the help of the British Quality Assurance Agency (QAA), <u>www.qaa.ac.uk</u> (For Arabic QAA handbook: "QAA-Report-arabic\_readers")
- The QA process started with the Computer Science (CS) Programme in public and private universities



QA is driven by the University's emphasis on:

- Providing excellent education informed by the most recent findings of research.
- Playing a major role in the development of the national human capacity.
- Providing students with the appropriate academic, cultural, professional, and social environment conducive to the development of their knowledge and intellect
- Focusing more on improvement than on competition
- Preparing students for independent (self) long-life learning



- In 2001, PU participated in the QA process
  Computer Science Programme / Faculty of IT
- Two quality assurance committees were established:
  - University Quality Assurance Committee (UQAC)
  - Faculty Quality Assurance Committee (FQAC) (For IT Faculty)



- The UQAC is chaired by the President and comprises, as members:
  - The Vice President for Academic Affairs
  - Deans of three Faculties (Administrative and Financial Sciences, Pharmacy, and IT)
  - A representative of the Faculty of Law
  - Two representatives of the Faculty of IT
  - The coordinator of the Office of Accreditation and Quality Assurance.



- In 2001-2003, the IT FQAC established the culture of QA in the University in general and the Faculty in particular and designed a process for documenting all its relevant aspects.
- Many components of the University's physical and academic structure were created, renovated, extended, and/or modified:
  - The infrastructure of many University buildings was extended/modified
  - Modern IT equipment (Hardware and Software) was provided and supported with great facilities of networking and the Internet.



- All University procedures were modified according to QA standards, and some new procedures were created, especially those related to the quality of teaching.
- The University Quality Assurance Handbook was prepared and put on the internet (www.philadelphia.edu.jo/science/pdf/qa.pdf)



- Different centres and offices were established, such as
  - (1) The Development and Academic Training Centre (DATC).
    - The centre aims at improving the overall scope and quality of instruction:
    - organizing and conducting seminars to promote excellence in teaching
    - encouraging and rewarding academic excellence and research
    - providing platforms for virtual learning, use of multimedia and teaching technology.



- cooperating with the faculties concerned in respect of improving programme structure, delivery, and evaluation in the light of external quality assurance reviews and reports.
- The DATC is chaired by the Vice President for Academic Affairs and comprises, as members:
  - the Dean of Research and Graduate Studies
  - representatives of the University faculties and academic centers
  - two specialists from two public universities (Yarmouk University and the University of Jordan). AAUQA Conference 2008 Mohammad Awwad



(2) The Accreditation and Quality Assurance Office is responsible for:

- developing, implementing , and monitoring the University's procedures for continued accreditation and validation of its academic programmes as well as the launching of new programmes
- cooperating and coordinating with the Ministry of Higher Education's Accreditation and Quality Assurance Council
- managing the University's Quality Assurance process



- developing and implementing measures for promoting, coordinating and monitoring the effectiveness of self-evaluation and the quality assurance processes and reports
- sharing and disseminating good QA practice within and outside the University
- liaising with the Ministry of Higher Education, the Al-Hussein Fund for Excellence in matters relating to accreditation and quality assurance
- reporting to the University Quality Assurance committee on current QA practice, and in respect of new developments



(3) The Alumni office for following up and supporting all University graduates.



In 2003, the CS Programme/Faculty of IT was reviewed in a second round by a British QAA review team

→ The programme was awarded the HFE first prize among all participating public and private universities

 Encouraged by the outcome of the CS programme review, the University adopted the quality assurance process and culture for all its programmes.



- In 2004, the Business Administration Programme/ Faculty of Administrative and Financial Sciences was reviewed by a British QAA team
  - → The programme received 21 points on a scale of 24 points (The winning programme received 23 points on the same scale)



- In 2005/2006, PU was the first private University to get official permission to start postgraduate studies in CS and English Language and Literature:
  - MSc in Computer Science
  - MA in English Language and Literature
- In the National University Exit Test (NUET) also known as the Comprehensive University Achievement Test, two programmes were ranked in the top performance group within a four-group performance scale: The Faculty of Law and the Faculty of Pharmacy. The top student among the country's 211 Pharmacy students enrolled at public and private universities was from the PU Faculty of Pharmacy.



In 2006, two programmes were reviewed:

- The Law Programme/Faculty of Law was reviewed by a British QAA team
  - → The programme was awarded the first HFE prize among all participating public and private universities
- The Accounting Programme/ Faculty of Administrative and Financial Sciences was reviewed by an American team
  Although it was not awarded the prize, its reviewers report was highly complimentary



- Two students from the Faculty of IT obtained outstanding results in world competitions run by Microsoft:
  - one ranked <u>third</u> in the "Computer Graphics" world competition
  - the other ranked <u>fifth</u> in the "Microsoft Word-2000" competition



- In 2007, a follow up process was conducted on the CS
  Programme
  - → The reviewers' report for CS programme was very good and complimentary. It referred to the QA process in the programme as being the only robust and mature process among all participating institutions.
- The NUET highest score was earned by a student in the PU Faculty of Law

- In 2008, two programmes were reviewed:
  - The Finance and Banking Sciences Programme
  - The English Language and Literature Programme
    Preliminary reports are highly complimentary.
- In NUET, nine graduating students from the MIS programme and six from the CIS programme in the IT Faculty ranked among the country's top ten students in each programme.
- Philadelphia University is the only private university in Jordan to appear in the 2008 webometrics ranking of the top hundred universities in the Arab World. It was also the only private university in Jordan to appear among the top one hundred universities in the Middle East and North Africa, according to the 2007 webometrics ranking



- The Ministry of Higher Education award for the 2000 distinguished student was awarded to a graduating student from the Faculty of Engineering/PU for his overall academic achievements, which included his senior project entitled
  - **"Design and Implementation of an Autonomous Mobile Robot**", which was done in cooperation with two PU students.
- This project also won the first prize award for the theme "Robotics and Smart Systems" at the 2008 national Technology Parade.

# The Staff



- ➤ The Staff recruitment procedure was enhanced
  ( → <u>Criteria for recruitment of faculty members</u>)
- An Induction procedure for the new staff was created and implemented
- ➤ The Staff development process was enhanced by launching a scholarship program for the different disciplines in the University (→ List of scholarships)
- > A **Staff appraisal and evaluation** procedure was created



**Curriculum Design, Organisation and Content** 

- Defining the Aims and Intended Learning Outcomes (ILOs) for each programme in the University
- > Writing programme specifications for the University's programmes leading to the BA, BSc, MA, and MSc degrees
- A Course Catalogue was published to describe the design, organisation, and content of each academic programme.



Curriculum Design, Organisation and Content

- An Undergraduate Handbook for each programme was published and handed to students.
- A special Course (Module) Descriptor is used to describe the syllabus of the module, its aims and ILOs. This syllabus is handed to students at the beginning of each semester
  ( -> Syllabus outline, sample syllabus 1, sample syllabus 2)
- A well-defined procedure was created for the modification of a module or study plan of a programme.



#### Teaching, Learning and Assessment

#### »Different Teaching methods

→ lectures, tutorials, labs, seminars, and workshops

#### > E-Learning courses were created

• Four courses of IT Faculty were evaluated to be the best among courses prepared by the other 15 Mediterranean

Universities participating in the UNESCO project.

• PU has been an accredited centre of the UNESCO Avicenna University since 2003.

> (http://avicinna.philadelphia.edu.jo) AAUQA Conference 2008 Mohammad Awwad



#### Teaching, Learning and Assessment

- •Virtual course material is available for the following courses:
  - Fundamentals of Telecommunication and Computer Networks
  - Software Analysis and Design
  - Fundamentals of Artificial Intelligence
  - Introduction to Information Systems
  - General Biology
  - Introduction to Probability and Statistics
  - Computer Architecture
  - Instrumentation and Measurement



#### Teaching, Learning and Assessment

- •Work is in progress in respect of preparing the electronic material for the following courses.
  - Distributed Information Systems
  - Analysis and Design of Management Information Systems
  - E-management and Information Technology Cell Biology
  - Mechatronics Systems
  - Signal Analysis and Processing

## Teaching, Learning and Assessment

- Different assessment methods
  - → formative (e.g. through written exams, assignments, coursework)
  - → diagnostic (e.g. through tutorials and exams )
  - → **summative** (e.g. through the final unseen exam)

#### On-line exams

- Computer Skills Test
- English Placement Test
- Remedial English, English skills 1, and English skills 2 Tests
- Students' feedback: questionnaires were prepared and filled out by current students, graduating students, graduates, and employers.

#### Module coordination ( coordination report form) AAUQA Conference 2008 Mohammad Awwad



# **Student Support and Guidance**

- Enhancement of
  - Student induction process
  - Student guidance process
- Development of an Electronic guidance system
- > On-line electronic registration
- > One academic tutor for a group of students
- Ancillary support for students: transportation, medical insurance, extra-curricula facilities, playgrounds, etc.



# **Learning Resources**

- Different learning resources were enhanced; the library, computer equipment, labs, etc. (2100 PCs, over a hundred thousand books, subscription to 370 periodicals, and on-line library access to over 1000 databases through subscription to Dialog and Ebsco)
- > The internet facilities are freely available to all staff members and students. There are also 27 wireless access points.
- The University is rich in its extracurricular activities. The Deanship of Student Affairs has a host of activities with enough and appropriate space to accommodate them.
- Drop-in centres and Incubator labs were established in some faculties (IT, Adm. & Financial Sciences, and Engineering)



# **QA Management**

- The QA process is managed and monitored according to an agenda followed by all staff members to assure the quality of all previously mentioned aspects.
- Different procedures to manage and monitor each aspect are in place with special forms for each aspect.
- All management and monitoring forms can be downloaded from the PU website.



# **QA Management**

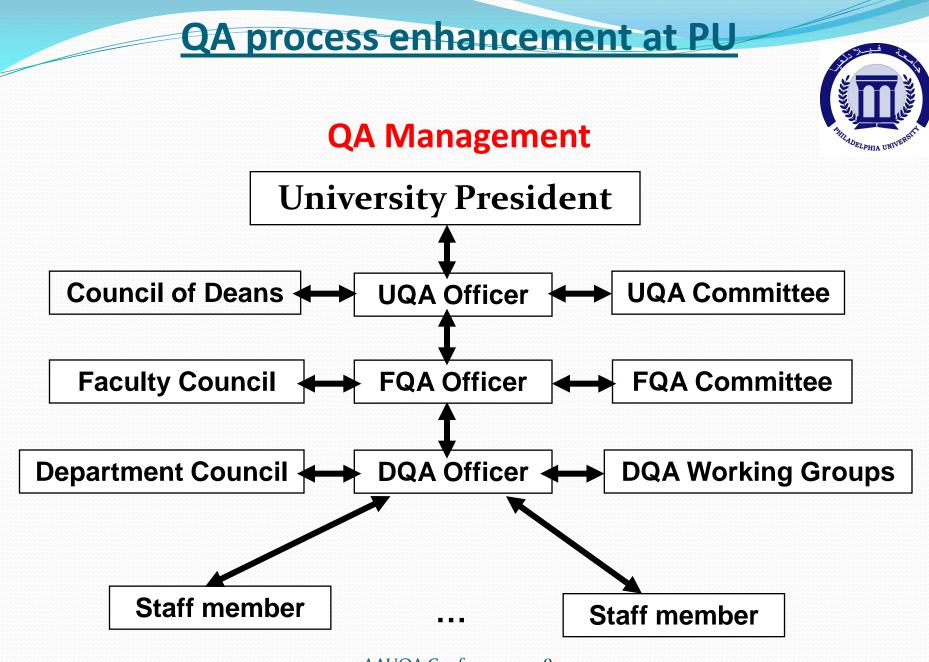
- QA Committees
  - 1- University QA Committee (UQAC)
  - 2- Faculty QA Committee (FQAC)
  - 3- Department QA Committee (DQAC)
- QA Officers
  - 1- University QA Officer (UQAO): The Vice President for

Academic Affairs

2- Faculty QA Officer (FQAO):

The Vice Dean

3- **Department QA Officer (DQAO):** The Head of Department





**QA Management** 

Different working groups are working on different tasks at the Department level.

(→ <u>QA infrastructure diagram</u>)



# **QA Management**

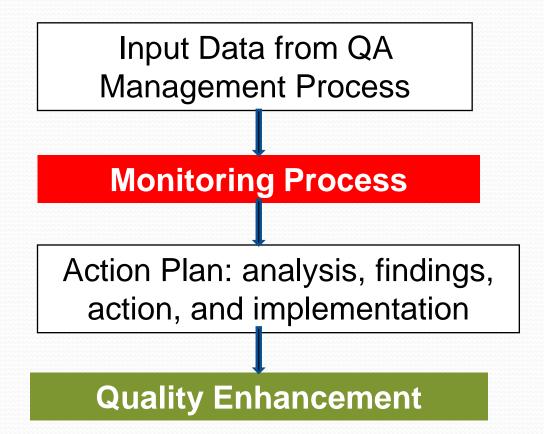
• The **QA Management Process** is a continuous process that depends on a specified agenda set by the UQA committee

#### (→ <u>QA 16-19-week agenda</u>)

Very important: All staff members are involved:

- 1- FQA officer sends the agenda to all DQA officers every 3 weeks
- 2- Each DQAO sends the agenda to the DQA working group
- 3- All staff members do the required tasks
- 4- DQAO collects data from staff and DQAWG, supervises the process, and maintains the Soft and Hard Base Room
- 5- DQAO reports to FQA officer every 3 weeks AAUQA Conference 2008 Mohammad Awwad

#### **QA Monitoring**



## **QA Monitoring**

Using different monitoring forms

- Exam results
- Library and self learning facilities
- Students' feedback
- Student Tutoring process
- Research Project Monitoring based on supervisor's report and feedback from students
- Scientific Activities
- External Examiner's Reports
- Instructor Assessment Reports
- Student Training Process
- Student Attendance





# **Action Plan**

- Data analysis
- Identifying strengths and weaknesses
- Interpreting performance indicators
- Planning for enhancement
  - Updating procedures
  - Suggesting new alternatives



# **Thank You**