



# **Enhancing Quality of Technology-Enhanced Learning at Jordanian Universities**

## **eQTel**

### **Learning Management System**

- DEV 3.1 The Creation of 3 Pilot Courses**
- DEV 3.2 Development of TEL Platform**



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- 3 pilot courses has been designed completely:
  - English Skills 2
    - Mandatory
    - By YU
  - Renewable Energy
    - Advanced
    - By HU
  - Communication Lab
    - Practical
    - By PSUT
- introduced in technology-enhanced learning format.
- used for the quality assurance framework



## Development Phases

- Each course passed by the following phases
  - Planning
  - Production
  - Delivery
  - Evaluation



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## Development Phases

### 1. Planning

- Team
- Tools
- Material sources
- course objectives, outcomes, outlines
- assessment criteria
- organizational structure of the course



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# Development Phases

## Team and Roles

Role	Description
<b>Instructional Designer (ID)</b>	define which skills and knowledge outcomes designing e-learning activities and materials <b>Define</b> the instructional, delivery and evaluation strategies.
<b>Subject Matter Expert (SME)</b>	<b>Source</b> of knowledge and information e-content preparation Define evaluation strategies.
<b>e-Content Developers</b>	Develop media components Assemble topic and course elements Install the courseware onto LMS
<b>Course administrator</b>	Manage learners accounts
<b>Online Tutor</b>	support and motivate students learning activities during the course
<b>Technical support specialist</b>	Provides technical support for all stakeholder during all phases.



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# Development Phases

## Tools

<b>Tool</b>	<b>Purpose</b>
<b>Adobe Photoshop</b>	Bitmap graphics
<b>Adobe illustrator</b>	Vectoral graphics
<b>Adobe flash</b>	Animations
<b>Triantis Lectora</b>	Courseware authoring
<b>Natural Reader</b>	Voice narration
<b>Sony Sound Forge</b>	Sound files editing
<b>Microsoft power point</b>	Static presentations
<b>Microsoft Word</b>	Text documents, tutorials, eBooks
<b>Moodle</b>	Learning management system
<b>eSurvey</b>	Evaluation and surveys



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## Development Phases

### 2. Production

- Agile: modules were produced iteratively
- Design
  - Modules objectives and outlines
  - Modules look and feel
- Content preparation
  - material is collected, refined, content is written
- Storyboard design
  - describes all elements





## Development Phases

### 2. Production

- Development
  - interface layout and course outlines are created
  - Media, interactive component, self-assessments and quizzes are developed
  - Using authoring tool
- Publishing
  - modules are produced in a shareable format



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## Development Phases

### 3. Delivery

- module is deployed into LMS and made available to learners.
- managing and facilitating learners' activities
- virtual class rooms, assignment, and quizzes

### 4. Evaluation

- Students Satisfaction Surveys
- Results Analysis



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## Virtual Learning Environment

- A VLE was developed to deliver the courses
  - HU, UoJ, and PSUT
- Moodle
- Hosed at PSUT Server
  - <http://eqtel-vle.psut.edu.jo/moodle/>
- Access Privileges:
  - 4 types of accounts
    - Administrator
    - Teacher
    - Student
    - Guest



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## Virtual Learning Environment

- Several synchronous and asynchronous moodle activities were employed:
  - SCORM package
    - Represents the eContent of a topic
    - Combination of texts, images, sound narrations, animations, videos, practice problems
    - Can be navigated easily
  - Quizzes
    - Gradable and self-assessments
    - Several types of questions
    - Authentication issues were considered



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## Virtual Learning Environment

- Several synchronous and asynchronous moodle activities were employed:
  - Assignments
    - Instructor post assignment with due date
    - Students response
    - Responses are graded with feedback by the instructor
  - Forums
  - Chats
    - Virtual Class Rooms



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## Videos

Renewable Energy Course Video  
Remote Labs Video



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# Thank You



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