



## EEI Team - LMS

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### EEI Learning Management System (EEI-LMS)

#### Overview

EEI LMS is a Management system for delivering, tracking and managing any type of educational training. EEI LMS can cater to different educational, administrative, and deployment requirements. LMS for Corporate Learning would differ from a Virtual Learning Environment used by educational institutions.

The virtual learning environment used by universities and colleges allow instructors to manage their courses and exchange information with students for a course that in most cases will last several weeks and will meet several times during those weeks.

In a corporate learning environment, the course may be much shorter and could be completed in single instructor-led or on line session.

The characteristics shared by both types of LMSs include:

- Users, roles, courses, instructors & facilities
- Course curriculum, calendar
- Student messaging and notifications
- Assessment/testing capable of handling student pre/post testing
- Grading of course-work and roster processing, including wait-listing
- Web-based or blended course delivery

EEI LMS is one of best Learning Management System (LMS). EEI LMS provides a robust, reliable, feature rich and scalable LMS solution. It comes with a vast range of functionality from the ability to upload and track e-learning resources to collaborative features including wikis, blogs, discussion forums, chat rooms and polls. EEI LMS typically costs a small fraction of a commercial LMS.

#### Feature set

##### Site management

- Site is managed by an administrator user
- Site is defined during setup. Defaults can be edited during setup or globally accepted
- Site can be modified by a robust Site administration block

##### User management

###### Overview

- Goals are to reduce admin involvement to a minimum, while retaining high security
- Supports a range of authentication mechanisms through plug-in authentication modules, allowing easy integration with existing systems

- Standard email method: students can create their own login accounts. Email addresses are verified by confirmation
- Students are encouraged to build an online profile including photos and description. Email addresses can be protected from display if required
- Every user can specify their own time-zone, and every date in EEI LMS is translated to that time-zone (e.g. posting dates, assignment due dates etc)
- Every user can choose the language used for the EEI LMS interface (English, French, German, Spanish and Portuguese etc)

### **Enrolment**

- Teachers can add an "enrolment key" to their courses to keep out non-students. They can give out this key face-to-face or via personal email etc
- Teachers can enroll students manually if desired
- Teachers can unenroll students manually if required; otherwise they are automatically unenrolled after a certain period of inactivity (set by the admin)
- External database: any database containing at least two fields can be used as an external authentication source
- Each person requires only one account for the whole server - each account can have different access
- Meta courses can group together related courses so participants can interact with each other

### **Roles**

- Roles for specific participants can be defined for each course
- An admin account controls the creation of courses and creates teachers by assigning users to courses
- Course creators can create courses, teach in them, and assign others to teacher roles
- Teachers are a role in a specific course
- Non-editing teacher roles are available for adjuncts, and part-time tutors

## **Course management**

### **Overview**

- A teacher has full control over all settings for a course, including restricting other teachers
- Choice of course formats such as by week, by topic or a discussion-focused social format
- Course Themes. A course can have its own theme of colors and layout
- Flexible array of course activities - Forums, Quizzes, Glossaries, Resources, Choices, Surveys, Assignments, Chats, Workshops
- Groups - teacher(s) and students can be placed in one or more groups
- Recent changes to the course since the last login can be displayed on the course home page - helps give a sense of community
- Most text entry areas (resources, forum postings etc) can be edited using an embedded WYSIWYG HTML editor
- All grades for Forums, Quizzes and Assignments can be viewed on one page (and downloaded as a spreadsheet file)
- Full user logging and tracking - activity reports for each student are available with graphs and details about each module (last access, number of times read) as well as a detailed "story" of each student's involvement including postings etc on one page.
- Mail integration - copies of forum posts, teacher feedback etc can be mailed in HTML or plain text

- Custom scales - teachers can define their own scales to be used for grading forums and assignments
- Courses can be packaged as a single zip file using the Backup function. These can be restored on any EEI LMS server.

### **Assignment Module**

- Assignments can be specified with a due date and a maximum grade
- Students can upload their assignments (any file format) to the server - they are date-stamped
- Late assignments are allowed, but the amount of lateness is shown clearly to the teacher
- For each particular assignment, the whole class can be assessed (grade and comment) on one page in one form
- Teacher feedback is appended to the assignment page for each student, and notification is mailed out
- The teacher can choose to allow resubmission of assignments after grading (for regarding)
- Allowing resubmissions can allow the teacher to progress monitor student projects/assignments as they evolve
- Advanced assignments can allow multiple files to be uploaded. This could keep together preplanning maps, outlines, research papers and presentations. (Not for beginners)

### **Chat Module**

- Allows smooth, synchronous text interaction
- Includes profile pictures in the chat window
- Supports URLs, smiley's, embedded HTML, images etc
- All sessions are logged for later viewing, and these can also be made available to students

### **Choice Module**

- Like a poll. Can either be used to vote on something, or to get feedback from every student (e.g. research consent)
- Teacher sees intuitive table view of who chose what
- Students can optionally be allowed to see an up-to-date graph of results

### **Forum Module**

- Different types of forums are available, such as teacher-only, course news, open-to-all, and one-thread-per-user.
- All postings have the author's photo attached.
- Discussions can be viewed nested, flat or threaded, oldest or newest first.
- Individual forums can be subscribed to by each person so that copies are forwarded via email, or the teacher can force subscription for all
- The teacher can choose not to allow replies (e.g. for an announcements-only forum)
- Discussion threads can be easily moved between forums by the teacher
- Attached images are shown inline
- If forum ratings are being used, these can be restricted to a range of dates

### **Glossary Module**

- This is one of the modules that best illustrates the way that EEI LMS can fundamentally improve upon the experience of a traditional classroom
- When students contribute to a course in a public place like the glossary, their ideas are given weight and attention and often result in a greater pride or ownership of the assignment
- Allows participants to create and maintain a list of definitions, like a dictionary
- Student entries can be previewed by instructors before publishing

- Entries can be searched or browsed using alphabet, category, date, and author
- A glossary of terms can be easily referenced by students
- Almost any module of EEI LMS can be set to hyperlink - automatically - to any word or phrase that is stored in or added to the glossary
- Glossary items can be grouped in categories
- Participants can comment on glossary entries
- Entries can be rated using teacher-defined scales
- Glossaries can be easily exported and imported via XML
- Glossaries can be fully searched
- Glossaries can be viewed with different display formats

### **Lesson Module**

- A lesson is a series of pages which can be presented in a linear fashion, like a slide show, or in a non-linear, branching manner, or in a combination of the two.
- Navigation through the lesson can be straight forward or complex, logical or random
- Pages can allow students choices through answers to teacher directed questions or descriptions
- Each choice can be associated with jumps that link to other tables
- Offers different scoring and grading potentials
- Interfaces with Grade and Glossary modules
- Lessons can build upon each other through conditional dependencies upon one another
- Question pages include multiple choices, Multi-answer, T/F, numeric, short answer and essay.
- Pages can be imported either as questions in a variety of formats or from PowerPoint
- Student attempts, time limits, minimum score and retakes can be set.
- Page content is HTML compatible, with a full set of edit tools for the teacher
- Students may see progress bars, running score, reinforcement to student questions
- Password, start and end times, and other restrictions can be placed on students.

### **Quiz Module**

- Teachers can define a database of questions for re-use in different quizzes
- Questions can be stored in categories for easy access, and these categories can be "published" to make them accessible from any course on the site.
- Quizzes are automatically graded, and can be re-graded if questions are modified and have a limited time window outside of which they are not available
- At the teacher's option, quizzes can be attempted multiple times, and can show feedback and/or correct answers
- Quiz questions and quiz answers can be shuffled (randomized) to reduce cheating and can be attempted multiple times, if desired.
- Questions allow HTML and images
- Questions can be imported from external text files
- Attempts can be cumulative, if desired, and finished over several sessions
- Multiple-choice questions supporting single or multiple answers
- Short Answer questions (words or phrases)
- True-False questions
- Matching questions
- Random questions
- Numerical questions (with allowable ranges)
- Embedded-answer questions (cloze style) with answers within passages of text
- Embedded descriptive text and graphics

### **Resource Module**

- Supports display of any electronic content, Word, PowerPoint, Flash, Video, Sounds etc. that are stored locally, or remotely
- Files can be uploaded and managed (zipped, unzipped, renamed, moved, etc..) on the server
- Folders can be created and managed on the server and linked to
- Internal web pages (html formatted) can be created with WYSIWYG editor and linked to
- Internal text pages (no formatting) can be created and linked to
- External content on the web can be linked to or seamlessly included within the course interface.
- External web applications can be linked to with data passed to them
- Linked MP3 audio files will display with elegant flash player

### **Survey Module**

- Built-in surveys (COLLES, ATTLS) have been proven as instruments for analyzing online classes
- Online survey reports always available, including many graphs. Data is downloadable as an Excel spreadsheet or CSV text file.
- Survey interface prevents partly-finished surveys.
- Feedback is provided to the student of their results compared to the class averages

### **Wiki Module**

- Wiki is a web page that anyone can add to or edit
- It enables documents to be authored collectively and supports collaborative learning
- Old versions are not deleted and may be restored if required

### **Workshop Module**

- Allows peer assessment of documents, and the teacher can manage and grade the assessment.
- Supports a wide range of possible grading scales
- Teacher can provide sample documents for students to practice grading
- Very flexible with many options

## **Achievements**

- Custom report generator
- Record audio repository plug-in
- Google Gears integration
- XML admin settings presets
- Workflow support in the Database activity module
- Flash-Based Statistics Visualize
- What You Paint Is What You Get extension to the WYSIWYG editor
- Blog-style course format

## **Advantages**

- Simple technologies. Easy to find developers. May have very fast adaptation life-cycle
- Build on reliable server technologies: Apache, PHP, MySQL driving a huge amount of Web sites, collaborative platforms, CMS and other efficient information management systems.
- Build on efficient technologies, high information handling power with relative small size hardware (comparing to huge needs of Tomcat, Web sphere and other application Server that should assume same functionalities).

- Pragmatically construction and design. No mazed libraries. Quite direct process path from user to storage system. This allows fast intervention in code.
- Quite nice updating model, that allows many upgrades being performed with a minored set of issues (we don't say there are not, but major part of accumulated work will never be lost).
- Full cooperative development model that allows many high quality contributions to accumulate new features, modules, enhancements
- Object oriented, that means not "software object oriented", but "teaching object oriented". This provides the richest set of base objects agreeable within au course strategy.
- Constructivism at teacher level: teachers can construct themselves their own teaching strategy, arranging contents and activities into logically designed resources set.
- Constructivism at teacher level (2): teachers can cooperate for constructing enhanced teaching strategies, using reactive community for getting help and suggestions of use.
- Constructivism at learner level: many social dedicated modules that allow peer to peer interaction and cooperation. Tools and activities for making content cooperatively.
- Nice ergonomic course model that allows managing big amount of resources without losing control of the neither structure nor sequence.

## Pitfalls

- Students who have less computer skills can be at a disadvantage
- The inevitability of disasters, complicated network systems can simply not work –paper and pencils always do
- More instructor effort required; teaching staff may not be able to cope with new technology