

Course Outline

for

ACADEMIC MANAGEMENT SYSTEM

(Open Source)

Academic Management System

This application consists of four basic modules:

1. Portal Framework,
2. Student Management,
3. Learning Management System
4. Content Management

1. Portal Framework

This serves as a basic framework for the whole system, and all other modules must reside within this framework. The framework also serves as a main entry point for the system, and contains functions that are used as collaborations among users of the portal communities.

Features

Community Web Pages

The portal serves as a homepage for the community, where administrator can upload and aggregates many web pages on the portal pages to be viewed by visitors. Portal administrator can easily manage the UI (look and feel) and the content of the pages that visitors will view. The portal provides different page layout such as – single column, double columns, three columns, narrow-wide columns and left-navigation view.

Portal Management Tools

This function allows portal administrator to do basic management functions such as:

1. Users Registration
2. Roles Management
3. Modules Registration
4. Theme Management

News

Portal administrator can post news using the Rich Text Editor tools that is provided as the editing tool. The news can be arranged to appear in a selected page of the portal.

Announcement

User with a privilege to create announcement can post announcement to be viewed by the portal users.

Forum

User with a privilege to create forum can post forum topics. Other portal users can reply to the topics and start a threaded discussion of the topics. Forum serves as a basic communication tool where users will interact with each others within the community.

Task Scheduler

This tool allows users to key in their tasks as they normally do with their diary book. Tasks are viewed in a weekly manner, and user can easily jump to other dates by selecting week, month and year to view. The tool has a function of inviting other users for the task that are entered. Users being invited to the task shall see the scheduled task and the name of the user who create the task in their own task scheduler. This feature is useful for example in the event of meetings arrangement.

Personalization

This is a special feature of a portal, where users can customize their own pages and look and feel of the portal. By customizing pages, meaning that, user is able to choose and do arrangement of pages and modules to be appeared when they login. With this feature, different users will have a different view of their own personal portal which will give a sense of ownership to the users.

2. Student Management

This system helps the academic staff of school, college or university to manage student's records.

Features

Configurable academic parameters

As different institutions (and also different places) shall have their own academic structure, the system was designed to be as generic and to be very configurable by users, so that it can suite to any institution's environment.

These parameters need to be defined first:

- Faculty (or academic group) - courses, program of studies, and subjects shall be defined under this entity.
- Study Period - define the structure of periods for the whole lifecycle of a program of study.

- Academic Sessions - define time units (consists of start date and end date), in which one time unit shall be mapped to one unit of study period for every intake session.
- Course Structure - define the course structure, or program of study to which students will enroll. The definition shall include, the period of study structure and the subjects structure (core or elective) within each period of study.

Admission

This function has a special method for automated selection of qualified applicants and helps you to manage the application for admission. For selection of qualified applications, you no longer need to do it manually. What you need to do is just define the selection criteria, and then run it against the program of study of applicant's selection. Consists of:

- Setting up the online application form parameters,
- Defining examination background fields and values,
- Defining the screening criteria based on examinations results,
- Screening of the applications to filter out qualified candidates based on the screening criteria that was defined earlier,
- Setting up the content for the letter of offer,
- Producing the letter of offer either by batch or individually (Letter of offer are produced in the PDF format).

Registration (Students Enrollment)

Manage enrollment of student into course / program of study. Consists of:

- Student registration - biodata entry or automatically retrieve the biodata (or biographic information) from the application form database,
- Course enrollment - enroll student into a program of study by current intake session (or user can choose other intake sessions)
- subjects registration - the system shall automatically registers core subjects into the student current period of study, or academic personal can manually select / deselect subjects for student
- Students enrollment reports - produced as PDF format.

Billing

This module helps account personal to issue billing, receive payments from students, and view several billing reports. Consists of:

- Defining fees (codes and amount) for each intakes session - these fees shall be listed in student invoice,

- Defining invoice and receipt reference numbers - these reference numbers shall appear in the printed invoice and receipt,
- Issue student billing invoice - the invoices can be printed in PDF format
- Issue student receipt when receive payment from student - the receipts can also be printed in PDF format
- Statements of account - account personal can view this report for each student
- Various reports - billing report, payments report, and unpaid payments report - all reports can be printed in PDF format

Examination

This module helps examination division of the institution to define, manage and records of examination results. Consists of:

- Defining grading scheme,
- Defining marking distribution scheme,
- Entry of marks by individual student,
- Entry of marks by batch based on subject,
- Calculation of GPA and CGPA,
- Viewing the student examination transcript for approval and to be published,
- Producing the student examination transcript in PDF format

3. Learning Management System

This module provides a collaboration tools between teachers and students, and serves as a place where students do their online learning and to communicate with other students and their teacher for the subjects they registered for.

Features

Task Scheduler

Teacher can post scheduled task for the classroom they are teaching, where students that are participating in a classroom will view all the tasks being posted. This is useful in the events such as class meetings, activities and so on.

Lesson Activities

Teacher has a responsibility to manage their own lessons for the subject they taught. The teacher can create lessons and students shall participate in the lesson activities that are posted by the teacher. Activities that are available in a lesson are as below:

Assignment

Teacher shall post their assignment through this function. Student in turn shall read all assignments that are posted to them, do the assignment job – for example writing an essay and saved as a Word document, and submit their assignment to be viewed by their teacher. Teachers can view all the submitted assignments by their students, and can download submitted documents by students. Teacher in turn can return the checked or corrected documents to their students.

Course Notes

Teacher shall submit notes such as lecture notes to be viewed by their students. Additional files can be submitted as an attachment to the postings.

Announcement

Teacher shall post announcement for the subject they taught to be viewed by their students. Additional files can be submitted as an attachment to the postings.

Forum

Teacher shall initiate a discussion topic and students will reply to the topic or reply to each others postings. Additional files can be submitted as an attachment to the postings.

Quizzes

Teacher shall create quizzes and publish them to be taken by their students.

4. Content Management

These modules shall cover the SCORM's capabilities of the system.

Content Authoring

These modules provide authoring tools for content authors to create content and to manage content's objects and assets. An interface for Meta tagging of the assets is provided to help the content author to create the Meta data. Authors can either create content in an online way with the help of the Rich Text Editor provided by the system, or they can create content offline with their preferred authoring tools- such as Dreamweaver or FrontPage, and then upload it to the content's repository via the upload content module.

Functions:

- Add new Content
- Edit existing Content
- Delete Content

- Create content's Meta Data File
- Modify content's Meta Data File
- Search Object

File Management

This module help the content author to manage their course content materials or assets – such as html page, images, audio and video file, at the server from only using the web browser. User can add, delete or move objects and also rearrange the directory structure. The system shall also help content author to modify the **imsmanifest** file, should any changes has been made to the course repository.

User can also upload pre-packaged courseware in any PIF format, and the system shall automatically unpackage them at the server.

Functions:

- Add/Upload File
- Get/Download File
- Upload PIF file

Launch / View Courseware

This is module is for learner to view the courseware online via the web browser. Learner may choose the subject to launch the courseware. Upon launching the contents, the system is using it SCORM's based capabilities to keep track of the learner's activities. All CMI data tracking elements are supported by the system.

Comments

Teacher may submit comment associate with a SCO (Shareable Content Object), where student may view the teacher's comment. Student may also submit their own comment while viewing any of the SCOs.

Functions:

- Create Comment
- View Comment