



## Install Moodle with RollCall

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# Title page 1

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*This page intentionally starts on an odd page, so that it is on the right half of an open book from the readers point of view. This is the reason why the previous page was blank (the previous page is the back side of the cover)*

# Install Moodle with RollCall

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*All the people who contributed to this document, to mum and dad and grandpa, to my sisters and brothers and mothers in law, to our secretary Kathrin, to the graphic artist who created this great product logo on the cover page (sorry, don't remember your name at the moment but you did a great work), to the pizza service down the street (your daily Capricciosas saved our lives), to the copy shop where this document will be duplicated, and and and...*

*Last not least, we want to thank EC Software who wrote this great help tool called HELP & MANUAL which printed this document.*

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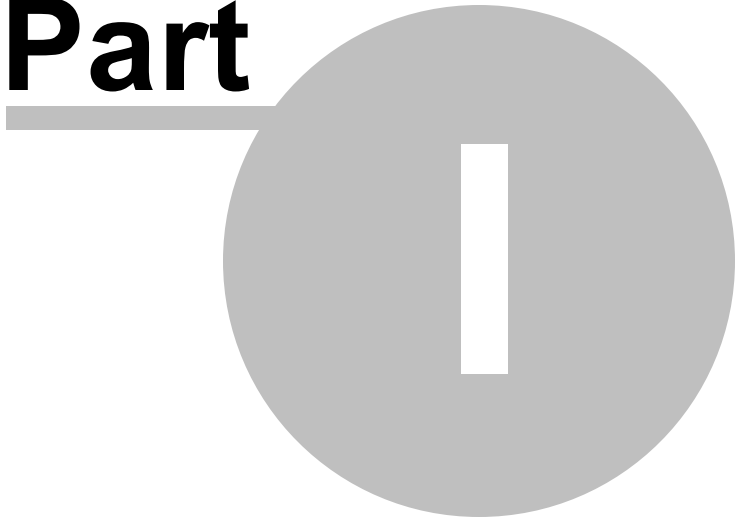
# Foreword

This is just another title page  
placed between table of contents  
and topics

# Top Level Intro

This page is printed before a new  
top-level chapter starts

**Part**



# 1 RollCall and Moodle Introduction

RollCall's connection with Moodle is a perfect solution to solve the challenge of integrating a Learning Management System with school administration. Moodle ([www.moodle.org](http://www.moodle.org)) is an open-source (free) Learning Management System used by thousands of schools to provide on-line learning via the web. RollCall supports connecting the administration of a class and registered students (tracking academic information for printing transcripts) with Moodle's on-line content (tests, assignments, video, chat and forums), giving you and your students a simplified way of utilizing the two systems in an integrated manner.

PowerVista RollCall is a school administration software application designed to streamline record keeping for adult education, training, post secondary and trade education organizations.

RollCall contains a "Curriculum" module that allows organizing assignments, resources, schedules and other information needed for tracking a student's academic performance in a particular class. This information is also useful for accreditation agencies, and was developed using publicly available information about curriculum/syllabus design. However, RollCall is not a Learning Management System (LMS), and doesn't have the content management features integrated into LMS systems. A majority of RollCall users plan to implement a hybrid approach, mixing traditional classroom learning environments with on-line LMS content. Sometimes entire classes in a degree granting program will be on-line. In other cases, some assignments for a particular class are on-line, while others are classroom or lab oriented.

It works like this:

- Install RollCall Web Portals and Moodle on the same server.
- Connect an existing RollCall class to its counterpart inside Moodle.
- A Student logs into their web portal, and every class that connects to Moodle shows the Moodle logo, when they press the link, they go directly to the Moodle class in the Moodle web pages.
- If they aren't currently registered in Moodle (a new student), they are automatically setup in Moodle with their RollCall user id and password.
- If they aren't currently registered for the class, they are automatically registered.
- When the Instructor assigns a final grade for a Moodle class, the grade is automatically transferred to RollCall. In RollCall, the gpa points and any awarded credits or hours get assigned and the Student's Degree Program information automatically updated.

## Installation and Setup Notes:

1. Moodle is already on another server or is hosted by another company: You have two choices, you can put the main Moodle login URL into the RollCall LMS setup page, and the student will be redirected to that page from RollCall. They will log in as they do today, with whatever user name and password they currently have. You will have to setup new students/registrations as you do today, and grades will not automatically transfer. Your second choice is to download, install and setup Moodle according to the instructions below. Then, you need to use Moodle functions to export/import your Moodle data to the new installation. The student user name becomes their RollCall id and their password becomes their RollCall password. They don't have to login separately to Moodle, they will be automatically logged in by the software. You don't have to enter registrations, new students or grades.

2. The installation is too complicated: It is complicated, because it is interlacing 4 more/less independently developed pieces of software together. PowerVista doesn't have any authority over the installation or setup of Moodle, PHP or IIS and so we can only provide instructions that use those software's functionality. It takes about 3.5 hours to install and you need someone with systems experience do the installation. They need to be able to use Windows Explorer, edit files, and have a

basic understanding of how the web works. We will be happy to do the installation for you for a flat fee, contact us for more information.

3. Instructors don't use their web portal to manage classes: No, not yet. They will use the direct URL as <your domain>/Moodle . That will be a future enhancement.

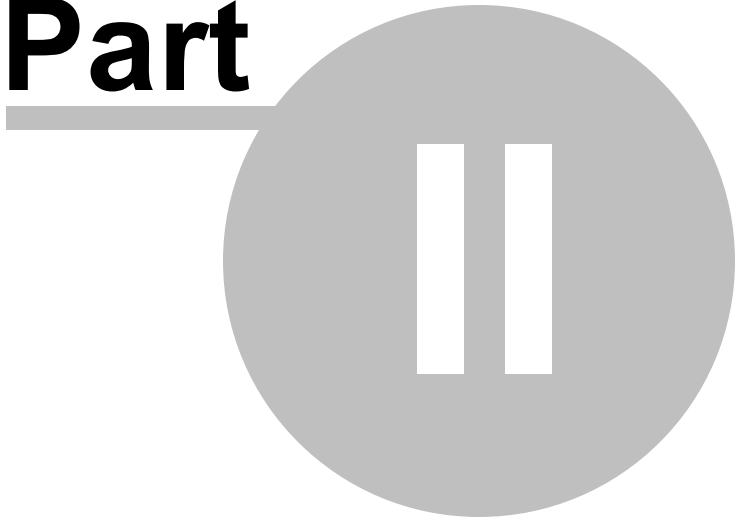
4. What are the next enhancements? We plan to make an automatic login for instructors to Moodle. We plan to connect individual assignment/exams grading to individual Moodle assignment/exams grading. Right now, we are only transferring final grades.



# Top Level Intro

This page is printed before a new  
top-level chapter starts

# Part



## 2 Installing Moodle with RollCall

This document contains instructions for installing Moodle on the same computer that hosts RollCall Enterprise Edition. At the conclusion of the installation, you will have a working copy of Moodle, accessible by the same web site that hosts RollCall web portals and exchanges information directly with the RollCall database.

### Requirements:

- \* An installed, licensed copy of RollCall Enterprise Edition, version 5.1 or higher
- \* An installed, licensed copy of RollCall Web Portals, version 5.1 or higher
- \* Microsoft Internet Information Services installation, version 7.0 or higher that you can access as an administrator
- \* Administrator rights for installing software on the server

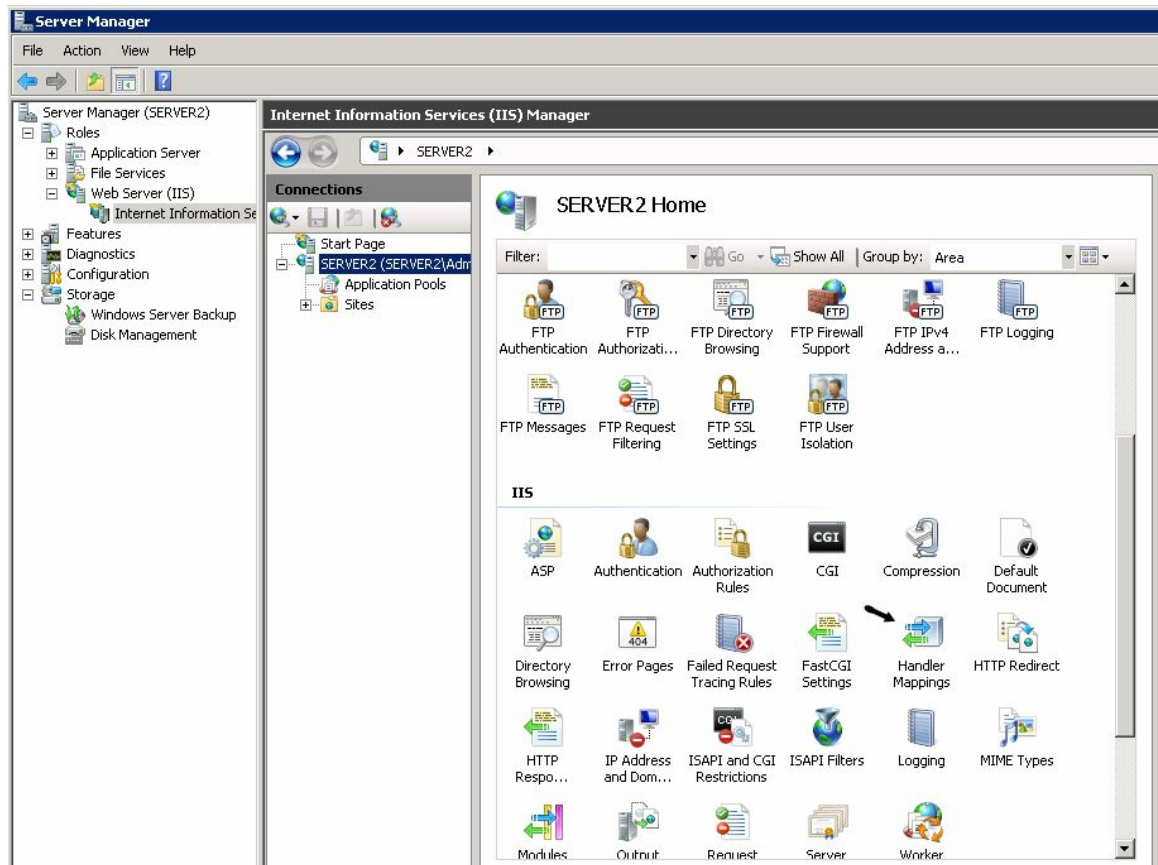
### Step 1: IIS Changes

Log into your server as an Administrative user. Use the same login as that for the original installation for RollCall, to have access to the same desktop and permissions. Open Server Manager and select World Wide Web Services -> Application Development Features and ensure the following extras are checked.

- a. Application Development
  - i. ASP.NET
  - ii. .NET Extensibility
  - iii. CGI
  - iv. ISAPI Extensions
  - v. ISAPI Filters
- b. Security
  - i. Basic Authentication

### Step 2: Download and Install PHP

- a. **Download** the latest Non Thread Safe *Installer*(not zip or debug) x86 VC9 version of PHP from:  
<http://windows.php.net/download> and **save** it to the **Desktop** on your server. As of this writing, that is version 5.3.26
- b. **Run** the downloaded MSI from your desktop.
- c. **Install** PHP to **c:\php**. The default will be c:/Program Files (x86).
- d. **Select IISFastCGI** from the list and click **Next**.
- e. Accept the default install. Click **Next** and then **Install**.



### Step 3: Setup IIS for PHP

- Open **Server Manager** and expand **Roles** down into **Web Server/Internet Information and Services**. Click on your server.
- Scroll down the page to **Handler Mappings** under the **IIS** Group (see above picture by the black arrow) and open the Feature.
- Click the **Actions** menu and select **Add Module Mapping...**
- Fill in the small form with the following information
  - Request path: **\*.php**
  - Module: **FastCGIModule**
  - Executable: **C:\php\php-cgi.exe**
  - Name: **PHPviaFastCGI**
- Click **OK** to add this extension to IIS. Click 'Yes' on the dialog to allow this ISAPI.

### Step 4: Test PHP

- If it is not already, install RollCall Web Portals version 5.1 on your server and publish the pages to your web site.
- Open the browser installed on the server and navigate to <http://localhost/testphp.php>. If you have configured PHP correctly with Internet Information Servers your page will load and at the top you will have the title of **PHP Version 5.2.5**.
- If you get a 'File Not Found' error, open your web site (see a. above), choose **Edit Site->Bindings** and add a binding for localhost, all IP Addresses, port 80.

**Step 5: Setup PHP to work with Moodle**

- a. Change the default php.ini file to work with Moodle. Choose the option below that fits your situation.
  1. If you installed PHP to the c:/ folder on your server and your web site is located in c:/inetpub/wwwroot, you can copy the file called php.ini located in your RollCall Application Server/Server/RCWeb/Packages folder to c:/php/php.ini, replacing the existing file.
  2. If you installed to different location(s), use Notepad to edit the existing file and set the following information:
    - i. Search for **doc\_root** and after the = add the root of your website
    - ii. Search for **upload\_tmp\_dir**. Change both **upload\_tmp\_dir** and **session.save\_path** on the next line to <your php path>\sessions.
    - iii. Navigate to the top of the page and search for **;cgi.fix\_pathinfo** and remove the ; comment from the start of the line.
    - iv. **Save** the php.ini file.
- b. Restart IIS services by opening a command prompt and typing **IISreset** and pressing **Enter**.
- c. Open a browser and **navigate** to <http://localhost/testPHP.php> and ensure the page loads.
- d. Search for **session.save\_path** within the page and check that this has changed to the new location set in set in step ii.

**Step 6: Folders and Permissions**

- a. **Navigate** to c:\php and **create** a new folder called **sessions**.
- b. Right click on the new **sessions** folder and select **properties**.
- c. **Select** the **Security Tab** and click on **Edit**.
- d. Click **Add** and click on **Locations...** and select your **local server** and click **OK**.
- e. Type **IUSR** which is the default user that runs the website in IIS. If you setup a different user, enter that name instead.
- f. Give the IUSR user write access. Checking **Modify** will also check **Write**.
- g. Click **OK** twice to confirm these changes
- h. Use Windows Explorer to navigate to c:\inetpub and create the folder c:\inetpub\moodledata.
- i. Use the steps above to give **IUSR write** permission to the Moodle data folder.

**Step 7: Connect SQL Server to PHP**

- a. Download from <http://www.microsoft.com/en-us/download/details.aspx?id=20098> (choose version 2.0 of the install)
- b. Install to a new folder
- c. Open the install folder and copy **php\_sqlsrv\_53\_nts.dll** to c:\php\ext.
- d. If you edited the php.ini file in step 5 b. , you need to edit it again as follows:
  - i. Open c:\php\php.ini and navigate to the bottom of the page.
  - ii. Add the code

```
[PHP_SQLSRV]
extension=php_sqlsrv_53_nts_vc9.dll
```

- on the last lines and save the file.
- e. Restart IIS by opening a **command prompt**, type **iisreset** and press **Enter**

### **Step 8: Configure Moodle**

- a. Open RollCall, choose Administration-> Lookup Tables, Class/Registration/LMS and select the LMS Setup tab.
- b. Enter a 'friendly name' for this LMS.
- c. Enter the login page path. The login path will be <http://www.<your domain name>/moodle/login/index.php> if you follow these instructions.
- d. Check 'Use AutoLogin Window' if you want RollCall's Student web portal to automatically add a registration for the student in Moodle and redirect them to the class web page when they press the 'moodle' button. If you leave it unchecked, the student will be directed to the main Moodle login site where they must add themselves and select the class. You need to set Moodle up to allow self-registration OR setup each student manually.
- e. Choose the 'class' level for this integration.
- f. Enter a user id for the Moodle database and a password. You will use these exact values when installing the Moodle software, so write down the password.
- g. Do not skip writing down the password.

### **Step 9: Install Moodle**

- a. Download **Moodle 2.5** from <http://download.moodle.org/> You would like the .zip format.
- b. **Extract** the content of the downloaded zip file in **c:\inetpub\wwwroot**, or whatever is your root path for your website.
- c. **Navigate** to [http://<your\\_domain>/moodle](http://<your_domain>/moodle) to display the Moodle Installation page
- d. **Select** the language you want to use and click **Next**.
- e. The Moodle install will automatically enter the Data Directory **c:\inetpub\moodledata** . If you receive an error message from this screen you have not set the permissions correctly on the server.
- f. Select **SQL\*Server Microsoft (native/sqldr)** for the database driver and click **Next**.
- g. Fill the online form:
  - i. Database host: **<computer name>\PVRollCall**
  - ii. Database name: **moodle\_DB**
  - iii. Database user: the user you entered in RollCall's LMS Setup page
  - iv. Database password: the password you wrote down earlier (you did write it down?)
- h. **Select** the content of the next page and copy it to the clip board (CTL-C). Open Notepad or create a file named **config.php** in the **c:\inetpub\wwwroot** folder. Paste (CTL-V) the content into the file and **Save** it.
- i. Click **Next** in the Moodle install web page and confirm the term and conditions.
- j. Moodle will now complete a check on the state of your environment. Everything should have a status of OK. You do not need to worry about the internationalisation extension. Click on **Continue**.

- k. Moodle creates tables the Microsoft SQL Server database. On completion, click **Continue**
- l. Give your admin account for Moodle a complex password (this is not the database password, it is the admin user password) Also complete the other fields required. At the bottom click **Update Profile**.
- m. Open RollCall and select File-> ODBC Changes.

### Step 10: Connect Moodle to RollCall

- a. Log into Moodle and expand **Site Administration**.
- b. Expand **Plugins** and **Authentication, Manage Authentication**, enable **External Database** and select **Settings**
- c. Fill in the form fields to match the pictures below.

**Navigation**

- Home
- My home
- Site pages
- My profile
- Courses

**Admin bookmarks**

bookmark this page

**Administration**

- My profile settings
- Site administration
  - Notifications
  - Registration
  - Advanced features
  - Users
  - Courses
  - Grades
  - Badges
  - Location
  - Language
- Plugins
  - Plugins overview
  - Install add-ons
  - Activity modules
  - Assignment plugins
  - Course formats
  - Blocks
  - Message outputs
- Authentication
  - Manage authentication
  - External database**
  - Email-based self-registration
  - Manual accounts
  - No login
  - Enrolments

#### External database

This method uses an external database table to check whether a given username and password is valid. If the account is a new one, then information from other fields may also be copied across into Moodle.

Host	<input type="text" value="RollCallWeb"/>	The computer hosting the database server.
Database	<input type="text" value="odbc_mssql"/>	The database type (See the <a href="#">ADOdb documentation</a> for details)
Use sybase quotes	<input type="text" value="Yes"/>	Sybase style single quote escaping - needed for Oracle, MS SQL and some other databases. Do not use for MySQL!
DB name	<input type="text"/>	Name of the database itself
DB user	<input type="text" value="RCMoodle"/>	Username with read access to the database
Password	<input type="text" value="M00dle**"/>	Password matching the above username
Table	<input type="text" value="Student"/>	Name of the table in the database
Username field	<input type="text" value="id"/>	Name of the field containing usernames
Password field	<input type="text" value="Password"/>	Name of the field containing passwords
Password format	<input type="text" value="Plain text"/>	Specify the format that the password field is using. MD5 hashing is useful for connecting to other common web applications like PostNuke.
External db encoding	<input type="text" value="utf-8"/>	Use 'internal' if you want to the external DB to manage usernames & email addresses, but Moodle to manage passwords. If you use 'internal', you must provide a populated email address field in the external DB, and you must execute both admin/cron.php and auth/db/cli/sync_users.php regularly. Moodle will send an email to new users with a temporary password.
SQL setup command	<input type="text"/>	Encoding used in external database
Debug ADOdb	<input type="text" value="No"/>	SQL command for special database setup, often used to setup communication encoding - example for MySQL and PostgreSQL: <code>SET NAMES 'utf8'</code>
Password-change URL	<input type="text"/>	Debug ADOdb connection to external database - use when getting empty page during login. Not suitable for production sites.
Cron synchronization script	<input type="text" value="Keep internal"/>	Here you can specify a location at which your users can recover or change their username/password if they've forgotten it. This will be provided to users as a button on the login page and their user page. If you leave this blank the button will not be printed.
Removed ext user	<input type="text" value="Keep internal"/>	Specify what to do with internal user account during mass synchronization when user was removed from external source. Only suspended users are automatically rewved if they reappear in ext source.

**Data mapping**

First name  These fields are optional. You can choose to pre-fill some Moodle user fields with information from the **external database** fields that you specify here.  
 Update local    
 Update external   
 Lock value  If you leave these blank, then defaults will be used.  
 In either case, the user will be able to edit all of these fields after they log in.

Surname   
 Update local    
 Update external   
 Lock value

Email address   
 Update local    
 Update external   
 Lock value

City/town   
 Update local    
 Update external   
 Lock value

Country   
 Update local    
 Update external   
 Lock value

Language   
 Update local    
 Update external   
 Lock value

Description   
 Update local    
 Update external   
 Lock value

Web page   
 Update local    
 Update external   
 Lock value

ID number   
 Update local    
 Update external   
 Lock value

Institution   
 Update local    
 Update external   
 Lock value

Department   
 Update local    
 Update external   
 Lock value

Phone 1   
 Update local    
 Update external   
 Lock value

Phone 2

- d. Expand **Plugins** and **Enrolments** and select **External Database**. Fill in the form as below:

Model for RollCall You are logged in as Admin User (Logout)

Home ► Site administration ► Plugins ► Enrolments ► External database Blocks editing on

Changes saved

### External database

You can use an external database (of nearly any kind) to control your enrolments. It is assumed your external database contains at least a field containing a course ID, and a field containing a user ID. These are compared against fields that you choose in the local course and user tables.

#### External database connection

Database driver enrol\_database | dbtype  Default: Empty  
ADODB database driver name, type of the external database engine.

Database host enrol\_database | dbhost  Default: localhost  
Type database server IP address or host name

Database user enrol\_database | dbuser  Default: Empty

Database password enrol\_database | dbpass   Unmask

Database name enrol\_database | dbname  Default: Empty

Database encoding enrol\_database | dbencoding  Default: utf-8

Database setup command enrol\_database | dbsetupsql  Default: Empty  
SQL command for special database setup, often used to setup communication encoding - example for MySQL and PostgreSQL: SET NAMES utf8

Use sybase quotes enrol\_database | dbsybasequoting  Default: No  
Sybase style single quote escaping - needed for Oracle, MS SQL and some other databases. Do not use for MySQL!

SQL command for special database setup, often used to setup communication encoding - example for MySQL and PostgreSQL: SET NAMES utf8

Use sybase quotes enrol\_database | dbsybasequoting  Default: No  
Sybase style single quote escaping - needed for Oracle, MS SQL and some other databases. Do not use for MySQL!

Debug ADOdb enrol\_database | debugdb  Default: No  
Debug ADOdb connection to external database - use when getting empty page during login. Not suitable for production sites!

#### Local field mapping

Local course field enrol\_database | localcoursefield  Default: idnumber

Local user field enrol\_database | localuserfield  Default: idnumber

Local role field enrol\_database | localrolefield  Default: shortname

Local category field enrol\_database | localcategoryfield  Default: id

#### Remote enrolment sync

Remote user enrolment table enrol\_database | remoteenroltable  Default: Empty  
Specify the name of the table that contains list of user enrolments. Empty means no user enrolment sync.

Remote course field enrol\_database | remotecoursefield  Default: Empty



### Remote enrolment sync

**Remote user enrolment table**  
enrol\_database | remoteenroltable  
 Default: Empty  
 Specify the name of the table that contains list of user enrolments. Empty means no user enrolment sync.

**Remote course field**  
enrol\_database | remotecoursefield  
 Default: Empty  
 The name of the field in the remote table that we are using to match entries in the course table.

**Remote user field**  
enrol\_database | remoteuserfield  
 Default: Empty  
 The name of the field in the remote table that we are using to match entries in the user table.

**Remote role field**  
enrol\_database | remoterolefield  
 Default: Empty  
 The name of the field in the remote table that we are using to match entries in the roles table.

**Default role**  
enrol\_database | defaultrole  
 Default: Student  
 The role that will be assigned by default if no other role is specified in external table.

**Ignore hidden courses**  
enrol\_database | ignorehiddencourses  
 Default: No  
 If enabled users will not be enrolled on courses that are set to be unavailable to students.

**External unenrol action**  
enrol\_database | unenrolaction  
 Default: Unenrol user from course  
 Select action to carry out when user enrolment disappears from external enrolment source. Please note that some user data and settings are purged from course during course unenrolment.

### Creation of new courses

**Remote new courses table**  
enrol\_database | newcoursestable  
 Default: Empty  
 Specify of the name of the table that contains list of courses that should be created automatically. Empty means no courses are created.

**New course full name field**  
enrol\_database | newcoursefullname  
 Default: fullname

**New course short name field**  
enrol\_database | newcourseshortname  
 Default: shortname

**New course ID number field**  
enrol\_database | newcourseidnumber  
 Default: idnumber

**New course category field**  
enrol\_database | newcoursecategory  
 Default: Empty

**Default new course category**  
enrol\_database | defaultcategory  
 Default: Miscellaneous  
 The default category for auto-created courses. Used when no new category id specified or not found.

**New course template**  
enrol\_database | templatecourse  
 Default: Empty  
 Optional: auto-created courses can copy their settings from a template course. Type here the shortname of the template course.

## **Step 12: Setup Moodle Courses to link with RollCall Classes**

- a. Instructors and Administrators will access Moodle through Moodle's default login page, Students will access Moodle either through the default login page OR using the Student web portal by pressing the 'moodle' button on registrations that link with Moodle courses.
- b. When you setup a Moodle course, set the "Course ID Number" to a unique value that you can link to RollCall. We suggest using the id+section+term as the id number, as this is guaranteed to be unique. It also helps answer student questions by making it easy to figure out which Moodle courses link to which RollCall classes.

- c. Open RollCall, use Class Maintenance-> Form View, and enter the Moodle course Id Number in the LMS Class Code field.
- d. If you wish to have grades transferred directly from Moodle to RollCall, setup a grade policy that has high/low values that correspond with the number ranges in Moodle and attach the policy to the Moodle class. When a final grade is entered in Moodle, Moodle will lookup the text result in the classes' grade policy using the high/low value. The associated grade and gpa points (if any) and awarded credit will be automatically added for the registration in RollCall.

## 2.1 Welcome topic

Enter topic text here.

## 2.2 Second topic

Enter topic text here.

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Endnotes 2... (after index)

Back Cover