

# RRU Open Courses

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## Moodle Plugin Documentation

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# Moodle 2.x Customization – RRU Open Courses

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## Overview

In Moodle 2, when a course is ready to be made available for students, an instructor or other staff member must manually make the course visible. In a large institutional environment with many course offerings starting on varying dates and running concurrently, the process of identifying which courses should be made visible and then opening the courses to students can be tedious and error-prone. Although Moodle supports course start dates, there is no core functionality in Moodle to automatically make courses visible to students at the appropriate time. This plugin provides that functionality.

Its operation is straightforward. Once a day, it checks the course table to determine which courses, if any, are scheduled to start that day. It then makes those courses visible, and sends a report by email to one or more administrators. Any problems are reported to the site administrator by email.

## Installing the plugin

1. Navigate to the local folder in the Moodle structure
  - `cd /var/web/wwwroot/moodle/local`
2. Download the installation package from GitHub
  - `wget https://github.com/royalroads/RRU-Open-Courses/archive/master.zip`
3. Untar the installation files in the local folder
  - `cd rruopencourses`
  - `tar -zxvf rruopencourses.tgz`
4. Clean up the install files
  - `rm ../ rruopencourses.tgz`
5. Log onto the Moodle instance with an admin account and press the “Upgrade” button when the “Plugins check” screen appears
  - You should see “**local\_rruopencourses**” Success followed by a “**Continue**” button. Click it.
  - You should see “**New settings – Default Courses**”
    - The administrator has the option to select one or more courses here or later through. Navigate to **Site administration** → **Plugins** → **Local plugins** → **RRU Open Courses**.
    - Click “Save changes” to continue.

## Configuring the plugin

The plugin is configured using the **Local plugins** administration page.

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### RRU Open Courses

<b>Open course date</b> roc_opencoursedate	<input type="text" value="0"/> Default: 0 <i>The number of days prior to course start date to make the course available to students (0 = course start date)</i>
<b>Email</b> roc_emails	<input type="text" value="MoodleTestMail@royalroads.ca"/> Default: Empty <i>Email address(es) of people who should receive notifications of course openings. Multiple addresses should be separated by ','</i>
<input type="button" value="Save changes"/>	

There are two options: **Open course date** and **Email**. Each of these is global; they affect all courses.

The first option allows you to specify how many days in advance of each course's start date the course should be made visible to students. The default setting, 0, means that the course will be made visible to students on the course's opening day. A setting of 3, for example, would cause the plugin to open courses three days prior to their start date.

The second option, email, allows you to specify to whom the notifications of opened courses are sent. One or more email addresses can be entered here. When there is more than one email address, the addresses should be separated by semicolons.

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## Using the plugin

### When to run

*RRU Open Courses* should be run once daily. Typically, a Moodle scheduled task or server cron job runs it once daily in the early morning hours, so that the courses it opens will be available to students when they start in the morning.

The plugin's time granularity is one day. It will immediately open any course that is due to open at any time on the day it is due to open. So, if the plugin runs at midnight, and a course is scheduled to open at 8am that morning, it will actually open at midnight.

Because of the designed time granularity, there is no advantage to running *RRU Open Courses* more often than once daily.

### Missed run

If the plugin is not run on a particular day, but there were courses due to be opened that day, they will not be opened on future runs. This prevents the accidental re-opening of closed or completed courses. Missed course openings need to be opened manually.

### How to run

The plugin is invoked using a Moodle scheduled task or by running **runopencourses.php**.


**runopencourses.php** must be called locally, not from a browser.

### Scheduled Task

The preferred way to use the plugin is to configure a scheduled task which calls it daily. This will ensure that there are no missed runs and courses open on schedule every day.

The default schedule is 3:30am local time daily.

To change the scheduled time:

1. Navigate to **Site Administration** → **Server** → **Scheduled tasks**.
2. Scroll down to **Auto Open Courses**.
3. Click the gear/cog icon  for Auto Open Courses.
4. Set the **minute** and **hour** to the time of day desired.
  - Leave *Day, Month, and Day of Week* set to *\** to run daily. If the plugin does not run daily, missed course openings are possible.
5. Click **Save Changes**.

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### *Cron*

Prior to the development of Moodle scheduled tasks, *RRU Open Courses* used a once-daily cron job to invoke the plugin. This legacy method is still available as an alternative. Like scheduled tasks, this method also ensures that there are no missed runs and courses open on schedule every day.

In a server shell, edit the crontab.

```
sudo crontab -e
```

Then add these lines.

```
# Auto-Open Courses - run at midnight daily to open courses due to open today
30 3 * * * php /var/web/wwwroot/moodle/local/rruopencourses/runopencourses.php
>/dev/null 2>&1
```

Note that this is only an example. The directory path to `runopencourses.php` might be different.

The first two values in this example represent the minute and hour (3:30 am) respectively. The next three values (day, month, day of week) should be left as `*` to ensure that the cron job executes once daily. The command to execute **runopencourses.php** follows.

### *Console*

The plugin can be invoked manually at any time from a server shell.

First, navigate to the plugin's directory.

```
cd /var/web/wwwroot/moodle/local/rruopencourses
```

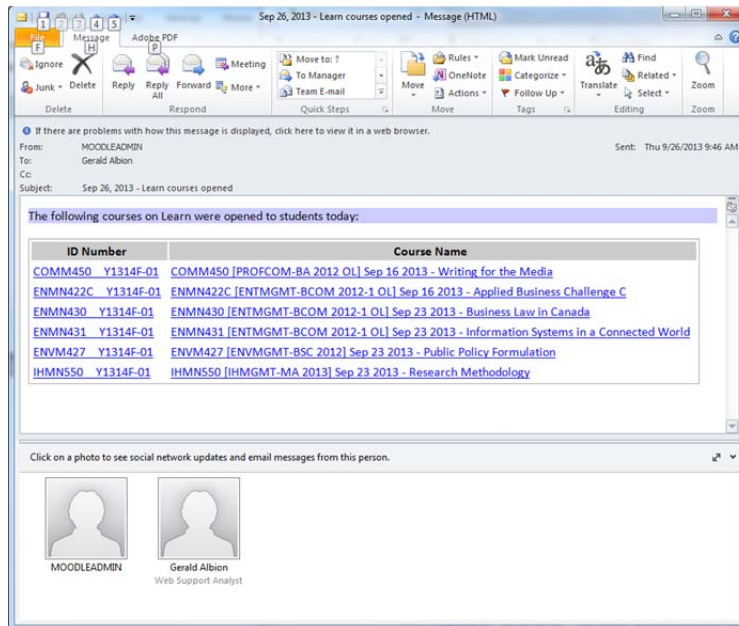
Then, run the plugin script.

```
php runopencourses.php
```

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## Reporting

After the plugin has opened courses, it reports on its activity by sending emails to one or more email addresses.



For convenience, the courses listed in the table shown above are linked to their corresponding course pages in Moodle.

If there are any problems, the plugin will attempt to email the site administrator (as configured in the Moodle do-not-reply option) with details of the error(s). Problems that affect whether or not a course was successfully opened will also be reported (if possible) to the normal recipients of the plugin's course opening notifications.

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## Testing

### Test cases setup

Create one or more test courses that are scheduled to open on the same day the test is performed.

Create one or more test courses that are scheduled to open the day after the test is performed.

Create one or more test courses that are scheduled to open on a date in the past, before the day the test is performed. The course(s) must be on a different date.

Ensure that the all of the courses are not yet available to students.

On the plugin's administration page, copy the current Emails to the clipboard and paste to a text editor. You will need to restore them later. Change the email destination to a test email address, ([moodletestmail@royalroads.ca](mailto:moodletestmail@royalroads.ca) would be ideal), where you will be able to receive emails from RRU Open Courses. When testing is complete, restore the previous emails from the copy in the text editor.

Ensure that the Open Course Date setting is set to 0. If it is not set to 0, record its value somewhere for later restore, and set to 0.

### Test cases

#### *Open one or more courses at the scheduled time.*

1. Log in to the server using an account that can run PHP scripts in the Moodle directory.
2. Navigate to the plugin's server directory.

*e.g.* `cd /var/web/wwwroot/local/rruopencourses`

3. Run the runopencourses script.

`php runopencourses.php`

- You should see a notification at the command line indicating that email has been sent to the address(es) configured for the plugin:

`Sending mail to MoodleTestMail@royalroads.ca`



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### *Email is sent.*

After a minute or so to allow email propagation, check the inbox of the test email account.

- **There should be a new email from MOODLEADMIN with a message body resembling this:**

The following courses were opened to students today:

ID Number	Course Name
<a href="#">COMM460 Y1314W-01</a>	<a href="#">COMM460 [PROFCOM-BA 2012 OL] Jan 13 2014 - Communication Ethics</a>

### *Missed cron run: missed (past-dated but not open) courses are not opened.*

Run the runopencourses script again.

```
php runopencourses.php
```

- **You should see the message “No courses to open today.”**

### *Future dated courses are not opened.*

- **After running the previous test cases, the resulting email must not include any of the courses that you set for a future date.**

### *Already-open courses are not opened.*

- **After running the “missed cron run” test case, there should not be another email indicating again that the courses opened in the first test case have been opened.**

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### *Open one or more courses in advance.*

1. Navigate to **Site administration** → **Plugins** → **Local plugins** → **RRU Open Courses**.
2. Set the Open Course Date value to 1.
3. Click **Save Changes**.
4. In the server shell, run the runopencourses script again.

```
php runopencourses.php
```

- You should see a notification at the command line indicating that email has been sent to the address(es) configured for the plugin:

**Sending mail to MoodleTestMail@royalroads.ca**

- Additionally, you should receive an email notification at the test email address indicating that the courses scheduled to start one day in the future have been opened today:

The following courses were opened to students today:


ID Number	Course Name
<a href="#">GTC101</a>	<a href="#">Gerald's Test Course 101</a>
<a href="#">GTC502</a>	<a href="#">Gerald's Test Course 502</a>

- Ensure that the email reports that course(s) set to open the next day all opened, and that no other courses opened.

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### *Scheduled Task*

1. Set up a test course as described above, with a start date today.
2. Navigate to **Site administration** → **Plugins** → **Local plugins** → **RRU Open Courses**.
3. Set the Open Course Date value to 0.
4. Click **Save Changes**.
5. Navigate to **Site administration** → **Server** → **Scheduled tasks**.
6. Scroll down to **Auto Open Courses**.
7. Click the gear/cog icon  for Auto Open Courses.
8. Set the **minute** and **hour** to a time two minutes in the future.
9. Click **Save Changes**.
10. Wait for the scheduled task to run.
  - **You should receive an email notification indicating that the test course has opened.**

### **After testing**

After all test cases are complete, restore the Emails and Open Course Date settings on the module's administration page.