Blackboard Learn API Documentation

Contents

Blackboard Learn Connector Configuration

Campus Café is compatible with the Blackboard learn Enrollment, User and Course creation RESTful API. Following the configuration steps will enable Campus Café, during the student course registration process, to push the student enrollment to Blackboard learn learning management system for an existing student account and course in Blackboard.

In addition, if the student does not yet have an account, or the course shell does not yet exist in Blackboard Learn, Campus Café can be configured to do the following:

- Create a student account during course enrollment
- Create course shell during course enrollment
- Create course shell during course add process
- Enroll teacher during course update/save process
- Create course shells in Blackboard during course copy process
- Enroll teachers based on course copy settings during course copy process

Blackboard Learn – Campus Café Integration Configuration

The procedure for configuring Blackboard Learn to accept enrollment and student account and course shell creation is a comparatively simple process compared to other integrations. In Blackboard Learn, logged in as an administrator, navigate to the REST API Integrations page. Create a new integration by entering the Application ID provided by Campus Café. Proceed to the Campus Café Client.
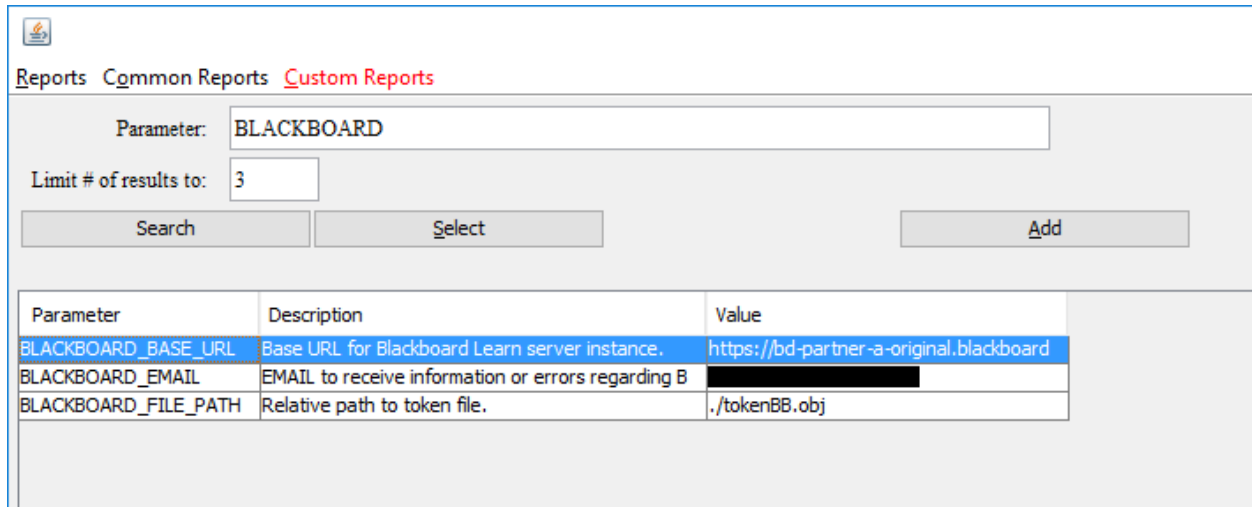
Campus Café Configuration

Campus Café requires configuration to manage enrollments in Blackboard. The sections below describe the configuration process.

Campus Café Client Configuration

In the Campus Café client, access the Admin interface and proceed to Web App Config. Update the

following values:

- BLACKBOARD_BASE_URL – provide the base URL for the Blackboard Learn service. Include the protocol.
- BLACKBOARD_EMAIL – enter an email account that will receive error information from Campus Café on Blackboard Learn API operations.
- BLACKBOARD_FILE_PATH – a file location for the OAuth2 token. OAuth2 tokens expire after an hour and are automatically regenerated, as needed, by Campus Café. The default, './tokenBB.obj', is a valid file location. You may move the file location if desired; note that the file path is relative to the Campus Café service location.

Note that, after entering these configuration settings, a server restart is required.

Campus Café Custom Control Maintenance Configuration

The settings available in the custom configuration maintenance interface include the following settings; each item can be disabled or enabled to accommodate your learning management system course shell population and user enrollment procedure.

Custom Control Maintenance

Information that is red is required

Prog Id: MOODLE   Seq #: 0   Context: -- choose one --   ▼   # Results: 0   [Search]   [Add/Edit]

[Copy] [Excel] [PDF] [Print] [Column Visibility]

Edit ▲	Delete	ProgramId	Seq Num	Parm	Value	Description	Default	Context
✎	✖	MOODLE	1	1		Y=ADD/DROP IN MOODLE UPON ADD/DROP IN CAFEWEB	N	REGISTRATION
✎	✖	MOODLE	1	2		Y=ADD/DROP IN MOODLEROOMS CONDUIT UPON ADD/DROP IN CAFEWEB		REGISTRATION
✎	✖	MOODLE	1	3		Y=ADD/DROP IN CANVAS UPON ADD/DROP IN CAFEWEB		REGISTRATION
✎	✖	MOODLE	1	4	Y	Y=ADD/DROP IN BLACKBOARD UPON ADD/DROP IN CAFEWEB		REGISTRATION
✎	✖	MOODLE	1	5	Y	AUTO-CREATE USER UPON ENROLLMENT		REGISTRATION
✎	✖	MOODLE	1	6	Y	AUTO-CREATE COURSE UPON ENROLLMENT		REGISTRATION
✎	✖	MOODLE	1	7	Y	AUTO-CREATE COURSE DURING COURSE SCHEDULING		REGISTRATION

Showing 1 to 7 of 7 entries

- Log into Campus Café and navigate to the Custom Control Maintenance interface, under Admin.
- Search for Program ID 'MOODLE'
- Edit parameter 4, enabling Add/Drop functionality for Blackboard learn, by saving the parameter value to ''
- If you wish to enable user account creation in Blackboard Learn during Campus Café student enrollment (in Campus Café, enrolling a student for whom a Blackboard Learn account does not exist), set parameter 5 to 'Y'.
- If you wish to enable course shell creation in Blackboard Learn during Campus Café student enrollment (in Campus Café, enrolling a student for whom a Blackboard Learn account does not exist), set parameter 6 to 'Y'.
- If you wish to enable course creation in Blackboard Learn during Campus Café course add and course copy operations, set parameter 7 to 'Y'. *Note: If, during course shell creation via course add or course copy operations, you wish to enroll the professor assigned to each course, set parameter 5 to 'Y' along with parameter 7.*

Schoology Introduction And Overview

Schoology API uses REST based web services to add and drop enrollments from Campus Café. It uses a 2 Legged OAuth type to authenticate. Use the following directions to set the connection up between Schoology and Campus Café.

Setup Campus Café To Connect to Schooolgy

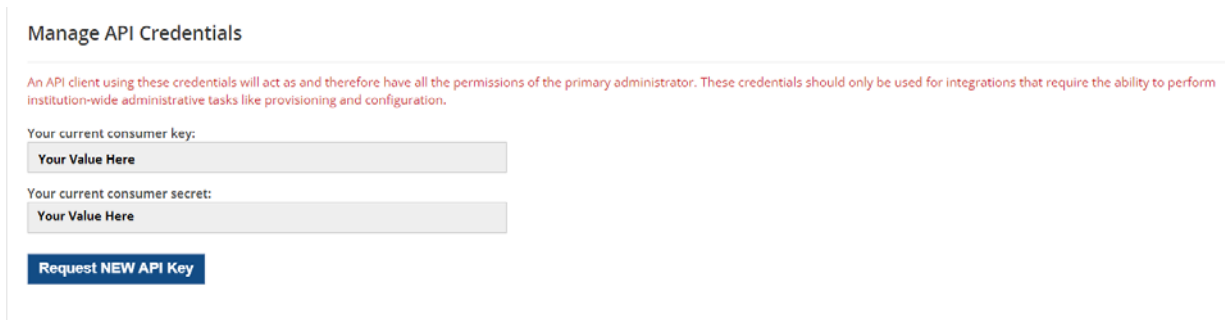**Configure Campus Café Web App Config To Connect to Your Schoology**

The first step is to get the API values from schoology. Go to your schoology url:

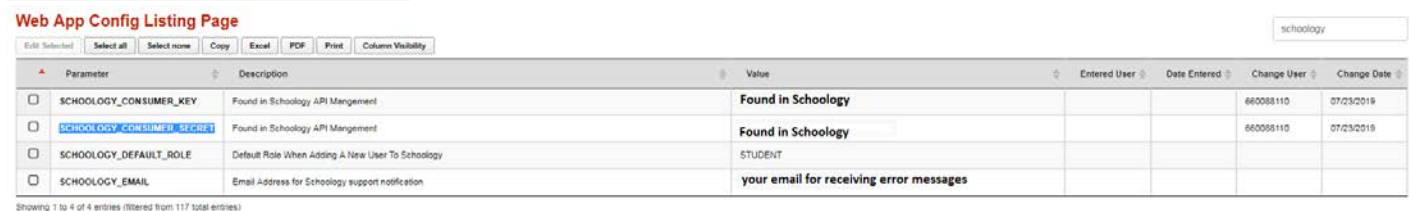https://yourcollege.schoology.com/api

Here you should fine the option to Request your API Key:

Click on the button and it should provide you with your API credentials:

Now, in Campus Café, go to Web App Config and enter schoology into the filter box in the right hand side. There should be 4 values for you to fill in. **SCHOOLOGY_CONSUMER_KEY** and **SCHOOLOGY_CONSUMER_SECRET** are the values you just found in Schoology.

The next value to fill in is **SCHOOLOGY_EMAIL**. This is the email address that an email is sent to when there is an error in the process.

The final value to fill in on the page is **SCHOOLOGY_DEFAULT_ROLE**. When enrolling a student if they do not exist in Schoology we will automatically create a user for that person. That user needs to be assigned a role so this value will hold the name of the role for that user. This value must be the same as a role found in Schoology here:

https://yourcollege.schoology.com/users/manage/roles

Set Campus Café Custom Control To Turn On Connection

In the Custom Control Maintenance Page, look for program id MOODLE. Then change the Value of Sequence Number 1, Parameter 9 to Y. This will turn on the connection from Campus Café to Schoology.

Campus Café is now configured.

Proper Schoology Formatting

When enrolling and unenrolling a student from a course in Campus Café, Schoology needs to know which student and which course is enrolling or unenrolling. We can tell it this by entering specific values in Schoology.

User Configuration

User configuration in Schoology can be found here:

https://yourcollege.schoology.com/users/manage

Each user can be assigned a Unique ID. This number needs to be set to be the same as the id number for the student in Campus Café.

Course Section Configuration

For Schoology to know which course section the user is to be enrolled into, it needs to set a value in Schoology that corresponds with a value in Campus Café. The way we do that is to enter a value in Schoology built on these values in Campus Café:

Semester~CourseNumber~CourseSection

We can then enter that value into the Section School Code in the proper section in Schoology. To do this, load the course then select Course Options and Edit Info:

Then find the Section School Code. You may need to click on "Use Section School Code" to display this field. Enter the value that we built into this field and press Save.

Now, when adding an enrollment through the course basket the program will first submit the enrollment. On success it will try to enroll a student with the same id number into the same course in Schoology, making sure it is set up the same way. For example, if Campus Cafe id 1234456 is being added into course AC101 section A in semester 201101, the program will attempt to insert Schoology Unique id 123456 into section school code 201101~AC101~A .

If every student in Campus Café has a correct Schoology Unique Id and every Schoology section is setup with the correct Section School Code, configuration is complete. Otherwise there is more configuration to be done to create missing users, courses, and course sections.

Additional Configuration

New User When User Not Found on Enrollment

In the event that a student is trying to enroll in Campus Café but there is no user record in Schoology with their Campus Café Id as their Schoology Unique Id a new User will be created in Schoology. This user will be entered with the following values copied from Campus Café: First Name, Last Name, Primary Email. It will take the Campus Café Id Number and enter it as their Unique Id. Finally, it will assign a role.

As mentioned above, Campus Café will hold the value of the Default New User Role in Web App Config in a parameter called **SCHOOLOGY_DEFAULT_ROLE.** Make sure that value is the same as one of the roles found here:

https://yourcollege.schoology.com/users/manage/roles

If we are not able to find a match, the student enrollment in Schoology will fail.

New Course Section When Not Found on Enrollment

In the event that a student is trying to enroll in Campus Café but there is no corresponding section in Schoology with a Section School Code of Semester~CourseNumber~CourseSection a new Section will be added in Schoology. A section needs to contain certain values, so it is done in this order:

-Finding a Grading Period:

Each section needs to include a Schoology Grading Period. This corresponds to semesters in Campus Café. The process will search through all the periods in Schoology and look for one with a title that matches the title of the Semester in Campus Café that the student is being enrolled into. A list of periods in Schoology can be found here:

https://yourcollege.schoology.com/system_settings/grades

For example, if a student is being enrolled into FALL 2020 in Campus Café, there needs to be a grading period named FALL 2020 in Schoology. If there is not then a course section cannot be created.

If we are not able to find a match, the student enrollment in Schoology will fail.

-Finding/Creating the Course Shell

When creating a section in Schoology it needs to have a Course Code. This attaches the section to the actual Course Shell (where the Course Code is kept). When the process attempts to add a new Section it will look for a Course Shell with a Course Code equals to the Course Number in Campus Café. (For example ACC101). If that does not exist then we will create a new course shell. This shell will enter the Campus Cafe Course Number as the Schoology Course Code and the title in Schoology will be the same as it is in Campus Café.

To edit a Course Code, first go to the Course Listing here:

https://yourcollege.schoology.com/courses/browse#/?_k=wefrn0

and press the edit pencil to the right of the course you wish to edit.

-Creating the Section

Now, with all that information known, we will create a new Course Section in Schoology. We will use the Campus Café title as the Schoology title and description. We will also enter the

section school code in the semester~courseNumber~courseSection format. We will assign it to the grading period as discussed above. Finally, we will link it to the Course we found above.

Review of Entire Process

Enrollment:

-Find Schoology User Based On Campus Café Id Number

      -If Not Found, Create User Using Default Role in Campus Café

      -If No Default Role Found, send Error (schoology enrollment failed).

-Find Course Section in Schoology Based on Campus Café
Semester~CourseNumber~CourseSection

      -If Not Found Create Using:

            -Default Grading Period Found Based On Campus Café Semester Name

                -If no Period Found, send Error (schoology enrollment failed).

                -Course Code Based on Campus Café Course Number. If Not Found Create
Course.

-Enroll Using Schoology User and Schoology Section.

Unenrollment:

-Find Schoology User Based On Campus Café Id Number

      -If Not Found Send Error (schoology unenrollment failed).

-Find Course Section in Schoology Based on Campus Café
Semester~CourseNumber~CourseSection

      -If Not Found Send Error (schoology unenrollment failed).

-Unenroll Using Schoology User and Schoology Section.