

Integrating Open Badge Factory / CanCred Factory with Brightspace LMS using LTI 1.3

version	Date	Release note
1.0	2023-02-27	Document issued

About LTI	2
Connecting Factory to Brightspace	2
Step 1: Register a new LTI 1.3 App	2
Step 2: Create Tool Deployment	4
Step 3: Register a new OAuth 2.0 application	6
Step 4: Add Tool Deployment to Factory	7
Usage	8
Add LTI Link to Courses	8
Issuing a badge to course participants	10
Issuing a badge automatically on course completion or score	11
Adding badge applications for a course	12
Reviewing badge applications	13
Issuing history	13
Student view	14

About LTI

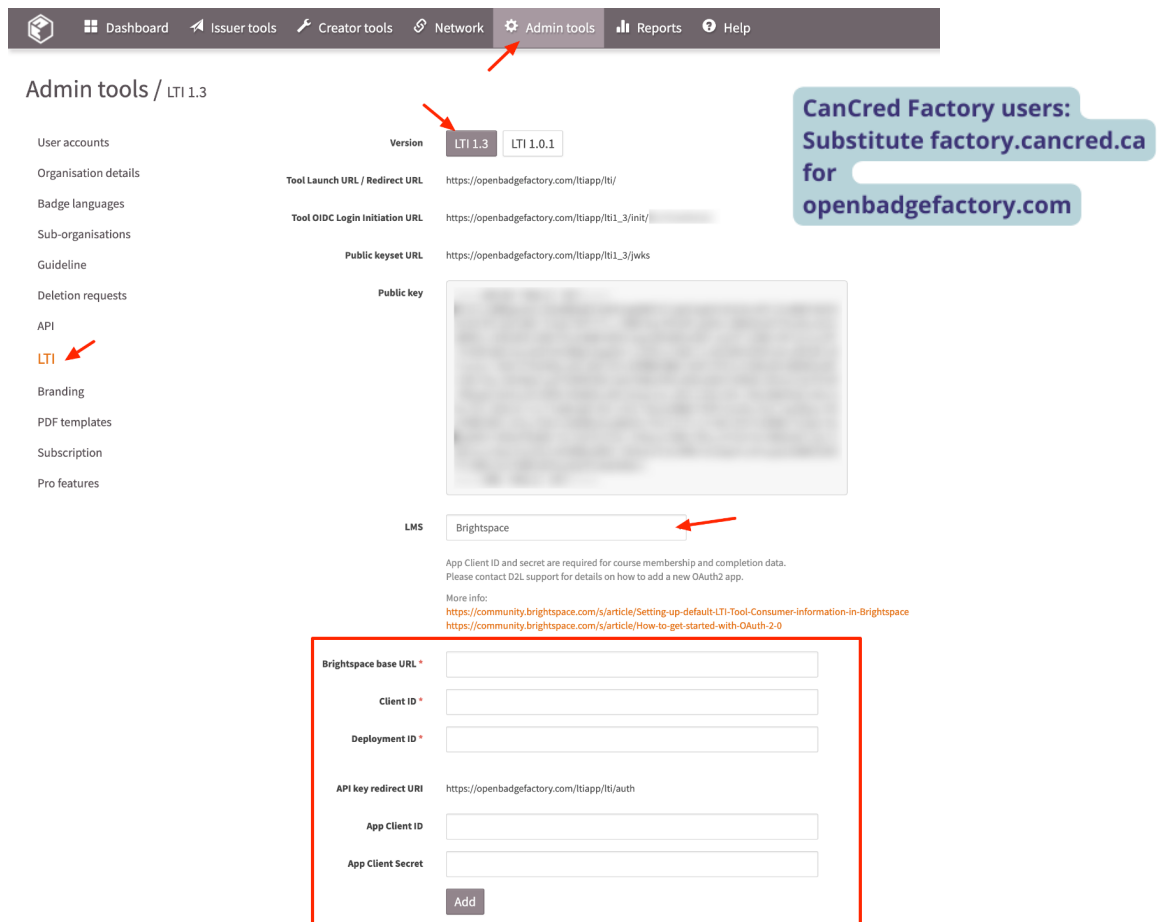
Learning Tools Interoperability (LTI) is a standard developed by [1EdTech Consortium](#), which allows courseware and learning tools from different vendors to be launched within a learning platform, often an LMS.

LTI Integration provides a link between an LTI supported LMS and your account in [Factory](#)¹. Our customers can use LTI 1.3 integration with Brightspace. LTI integration requires a Pro subscription level. LTI 1.3 has a more straightforward upgrade path than other versions and the full support and endorsement of major platform providers.

Connecting [Factory](#) to Brightspace

Step 1: Register a new LTI 1.3 App

Log in to [Factory](#) and go to Admin Tools > LTI. Choose Version: 1.3 and LMS: Brightspace. In this page you can see configuration values you need to connect the tool to Brightspace:



Admin tools / LTI 1.3

Version: **LTI 1.3** LTI 1.0.1

Tool Launch URL / Redirect URL: <https://openbadgefactory.com/ltiapp/lti/>

Tool OIDC Login Initiation URL: https://openbadgefactory.com/ltiapp/lti1_3/init/

Public keyset URL: https://openbadgefactory.com/ltiapp/lti1_3/jwks

Public key: [Blurred image]

LMS: **Brightspace**

App Client ID and secret are required for course membership and completion data. Please contact D2L support for details on how to add a new OAuth2 app.

More info:
<https://community.brightspace.com/s/article/Setting-up-default-LTI-Tool-Consumer-information-in-Brightspace>
<https://community.brightspace.com/s/article/How-to-get-started-with-OAuth-2-0>

Brightspace base URL * [Input field]

Client ID * [Input field]

Deployment ID * [Input field]

API key redirect URI <https://openbadgefactory.com/ltiapp/lti/auth>

App Client ID [Input field]

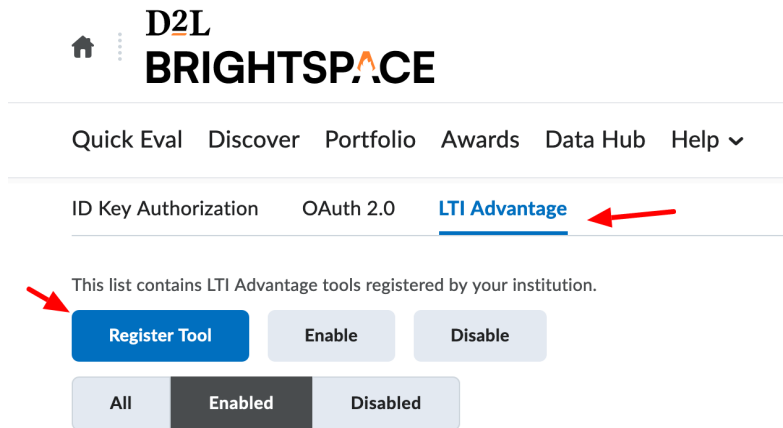
App Client Secret [Input field]

Add

CanCred Factory users:
 Substitute factory.cancred.ca
 for openbadgefactory.com

¹ Factory stands for Open Badge Factory or CanCred Factory

1. In Brightspace, go to Admin Tools -> Manage Extensibility -> LTI Advantage
2. Click Register Tool:



3. Choose Standard method
4. Set tool Enabled

Diagram illustrating the registration of a tool in Brightspace, showing the mapping of tool information to the registration form fields.

Tool Information:

- Your tool name:** For instance Open Badge Factory or CanCred
- Open Badge Factory:** <https://openbadgefactory.com>
- CanCred:** <https://factory.cancred.ca>
- Version:** LTI 1.3 (selected), LTI 1.0.1
- Tool Launch URL / Redirect URL:** <https://openbadgefactory.com/ltiapp/lti/>
- Tool OIDC Login Initiation URL:** https://openbadgefactory.com/ltiapp/lti1_3/init/18LZYISa9NZa8J
- Public keyset URL:** https://openbadgefactory.com/ltiapp/lti1_3/jwks


Registration Form Fields:


- How would you like to register your tool?**
 - ☒ Standard
 - ☐ Dynamic
- Enabled:** ☒
- Name:** Open Badge Factory
- Description:**
- Domain:** <https://openbadgefactory.com>
- Redirect URL:** <https://openbadgefactory.com/ltiapp/lti/>
- OpenID Connect Login URL:** https://openbadgefactory.com/ltiapp/lti1_3/init/
- Target Link URL:** <https://openbadgefactory.com/ltiapp/lti/>
- Keyset URL:** https://openbadgefactory.com/ltiapp/lti1_3/jwks
- Extensions:**
 - ☐ What are Extensions?
 - ☐ Assignment and Grade Services
 - ☐ Deep Linking
 - ☐ Names and Role Provisioning Services
- Roles:** ☒ Send Institution Role
- Substitution Parameters:**
 - No items found.
 - [+ Add Substitution Parameter](#)
- Custom Parameters:**
 - No items found.
 - [+ Add Custom Parameter](#)


CanCred Factory users:
Substitute factory.cancred.ca for openbadgefactory.com


5. Input descriptive value for tool Name
6. Input tool domain :
 - For Open Badge Factory: <https://openbadgefactory.com>
 - For CanCred: <https://factory.canced.ca>
7. From **Factory**, copy following values to Brightspace settings form:
 - Tool Launch URL / Redirect URL => Redirect URLs
 - Tool OIDC Login Initiation URL => OpenID Connect Login URL
 - Tool Launch URL / Redirect URL => Target Link URI
 - Public keyset URL => Keyset URL
8. Under Roles, enable Send Institution Role
9. Click Register
10. A popup opens with the registration details for this app. Copy Client Id value for later use.


Brightspace Registration Details


Client Id 

Brightspace Keyset URL 

Brightspace OAuth2 Access Token URL
<https://auth.brightspace.com/core/connect/token> 

OpenID Connect Authentication Endpoint 

Brightspace OAuth2 Audience
<https://api.brightspace.com/auth/token> 



Issuer 




[View Deployments](#)

Done

Step 2: Create Tool Deployment

1. In Brightspace, go to Admin Tools -> External Learning Tools
2. Click New Deployment

[Quick Eval](#)
[Discover](#)
[Portfolio](#)
[Awards](#)
[Data Hub](#)
[Help](#)

External Learning Tools

[LTI Advantage](#)
[Manage Tool Links \(Legacy\)](#)
[Manage Tool Providers \(Legacy\)](#)
[Migration Log](#)

[New Deployment](#)
[Enable](#)
[Disable](#)

[All](#)
[Enabled](#)
[Disabled](#)

- Under Tool, select the tool registered in step 1
- Input descriptive value for deployment Name
- Under Security Settings, enable Org Unit Information and all values in User Information
- Click Add Org Units and select all units (Course Offering, Semester, Department, Organizations etc.) where this tool should be available. If applicable, you can select "This org unit and all descendants":

Add Org Units

Filter by Org Unit Type

Choose Org Unit Type

Search...

<input type="checkbox"/>	Name ▲ , Code	Type	Options
<input type="checkbox"/>	Adventures with GBL, Dev-GBL	Course Offering	
<input type="checkbox"/>	All Migrated Courses Semester, sem_courseconversion_d2l	Semester	<input checked="" type="radio"/> This org unit <input type="radio"/> All descendants <input type="radio"/> This org unit and all descendants
<input type="checkbox"/>	Brightspace Samples, dept_sample	Department	<input checked="" type="radio"/> This org unit <input type="radio"/> All descendants <input type="radio"/> This org unit and all descendants

[Add](#)
[Cancel](#)

- Click Create Deployment
- A popup opens with the deployment details. Copy Deployment Id value for later use.

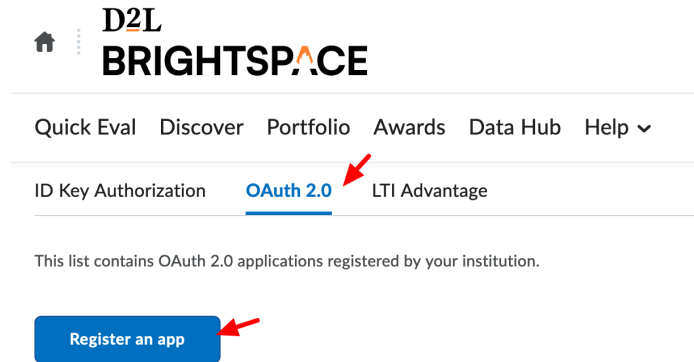
Brightspace Deployment Details

Deployment Id

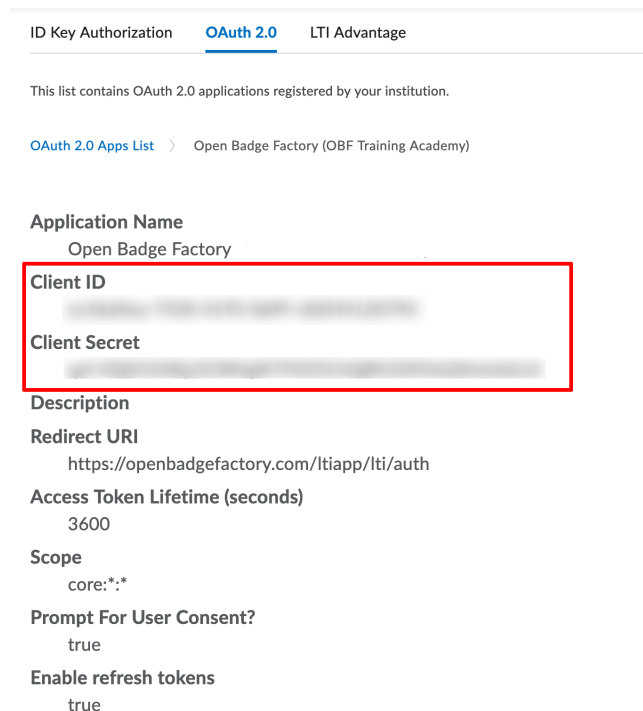


Step 3: Register a new OAuth 2.0 application

1. In Brightspace, go to Admin Tools -> Manage Extensibility -> OAuth 2.0
2. Click Register an app:



3. Input descriptive Application Name (e.g. [Open Badge Factory](#) or [CanCred Factory](#))
4. Set the Redirect URI:
 - o For Open Badge Factory: <https://openbadgefactory.com/ltiapp/lti/auth>
 - o For CanCred Factory: <https://factory.cancred.ca/ltiapp/lti/auth>
5. Input Scope => core:*,*
6. Enable Prompt for user consent and Enable refresh tokens
7. Click Register
8. Copy Client ID and Client Secret values for later use:



The screenshot shows the 'OAuth 2.0 Apps List' with a link to 'Open Badge Factory (OBF Training Academy)'. Below this, the configuration details for the application are shown:

- Application Name:** Open Badge Factory
- Client ID:** [Redacted]
- Client Secret:** [Redacted]
- Description:**
- Redirect URI:** <https://openbadgefactory.com/ltiapp/lti/auth>
- Access Token Lifetime (seconds):** 3600
- Scope:** core:*,*
- Prompt For User Consent?:** true
- Enable refresh tokens:** true

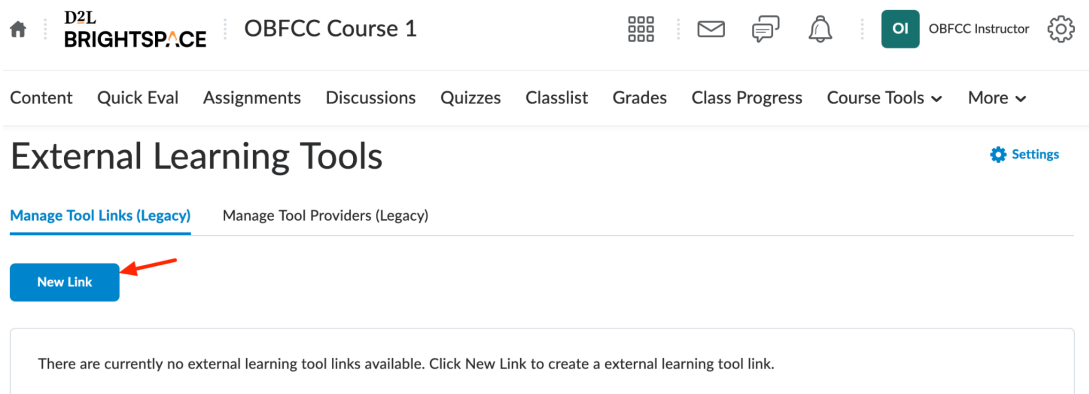
Step 4: Add Tool Deployment to [Factory](#)

1. In [Factory](#), input the following values to the LTI settings form:
 - a. Brightspace base URL => your Brightspace installation url
 - b. Client ID => Client ID created in step 1.
 - c. Deployment ID => Deployment ID created in step 2.
 - d. App Client ID => OAuth2 Client ID created in step 3.
 - e. App Client Secret => OAuth2 Client Secret created in step 3.
2. Click "Add"

Usage

Add LTI Link to Courses

1. Go to a Course, click Course Tools -> Course Admin -> External Learning Tools
2. Click New Link:



3. Select the deployment created in step 2.
4. Input descriptive link Name (e.g.: Open Badges)
5. From [Factory](#), copy Tool Launch URL / Redirect URL => URL
 - For Open Badge Factory : <https://openbadgefactory.com/ltiapp/lti/>
 - For CanCred Factory: <https://factory.canced.ca/ltiapp/lti/>
6. Click Save and Close

D2L BRIGHTSPACE Emotional Intelligence

Content Assignments Discussions Quizzes Classlist Grades Class Progress Course Tools ▾

Create Link

Enabled ☒

Deployment *
Open Badge

Name *
Open Badges

URL *
<https://openbadgefactory.com/ltiapp/lti/>

Description


Substitution Parameters
[What are Substitution Parameters used for?](#)
No items found.
[+ Add Substitution Parameter](#)


Custom Parameters
[What are Custom Parameters used for?](#)
No items found.
[+ Add Custom Parameter](#)


[Save and Close](#) [Save](#) [Cancel](#)


7. Click the Content link in the top navigation
8. Choose a Module and from Existing Activities dropdown, select External Learning Tools
9. In the item type drop-down menu, select External Tool.
10. Select the [Open Badge Factory](#) or [CanCred Factory](#) external tool and review the settings


Content Assignments Discussions Quizzes Classlist Grades Class Progress Course Tools ▾ Help ▾



0% Outcomes [+ New Unit](#) 

 **What is Emotional Intelligence (EI)?**


 Benefits of EI

 5 Dimensions of Trait EI Model

 Determine your EQ

 **Open Badges** 

☐ ☒ Hidden [Add Existing](#) [Create New](#)



There are currently no badges available here.
You can add badges or badge applications using tools below.

- [Issue badge](#)
- [Review applications](#)
- [Manage settings](#)
- [Issuing history](#)

Important: some browsers and/or Brightspace may not accept iframes. You may have to edit your course link property to : "Open as External Resource":

Open Badge Factory

External Learning Tool

Add dates and restrictions...


Add a description...

☐ Open as External Resource

User progress is not tracked for external resources

Issuing a badge to course participants

1. In Brightspace, from your Course, from the External Learning Tool link created in the previous step
2. Click Issue badge




There are currently no badges available here.

You can add badges or badge applications using tools below.

- [Issue badge](#)
- [Review applications](#)
- [Manage settings](#)
- [Issuing history](#)

3. Select the badge you want to issue:



Issue Badge

[« Back to start](#)

☒ Order by last modified
 ☐ Order by title

☐ Show shared badges only


all

Médaille d'or Région

OBf Academy FEV23

Offranville

Transition Ecologique

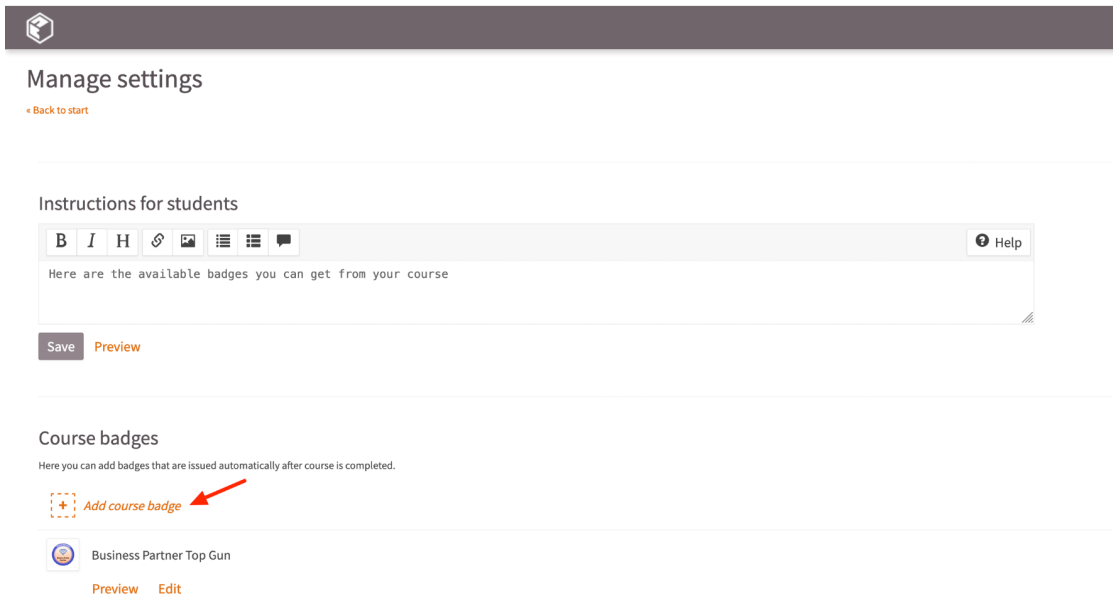


Je m'engage dans la transition écologique
 Le récepteur de ce badge a participé au SPOC "enjeux de la transition écologique" de l'Université Paris Saclay

1. Define all your badge details
2. Select your students
3. Edit your email message
4. Issue your badge

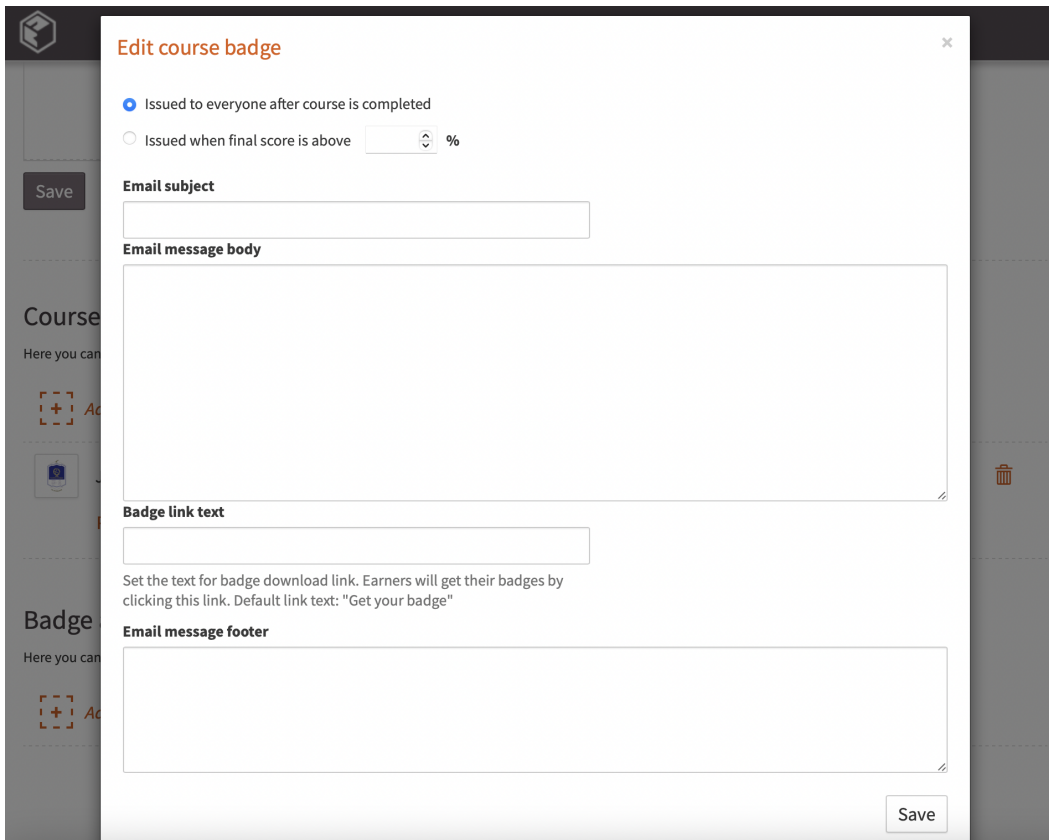
Issuing a badge automatically on course completion or score

1. In Brightspace, from your Course, from the External Learning Tool link created in the previous step, click **Manage settings**
2. Click **Add course badge** and pick the badge to issue



3. Click **Edit** on the badge
4. Choose if the badge is issued to all course members after the course completion or based on final score
5. Input the email message that is sent when the badge is issued

Please note that course badges are issued periodically once a day after course completions are checked.



Edit course badge

☒ Issued to everyone after course is completed
☐ Issued when final score is above %

Email subject

Email message body

Badge link text

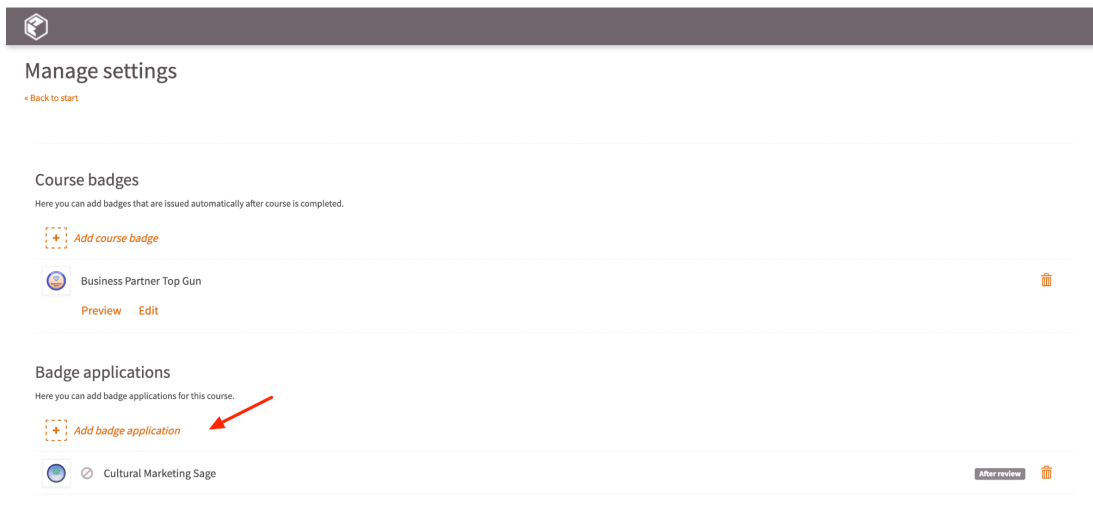
Set the text for badge download link. Earners will get their badges by clicking this link. Default link text: "Get your badge"

Email message footer

Save

Adding badge applications for a course

1. In Brightspace, from your Course, from the External Learning Tool link created in the previous step, click **Manage settings**
2. Click **Add badge application**
3. Select the badge application you want to add to the course



Manage settings

[Back to start](#)

Course badges

Here you can add badges that are issued automatically after course is completed.

[Add course badge](#)

Business Partner Top Gun [Preview](#) [Edit](#)

Badge applications


Here you can add badge applications for this course.

[Add badge application](#)

Cultural Marketing Sage [After review](#)

Reviewing badge applications

1. In the LTI tool, click Manage settings
2. Click Review applications



Review applications

« Back to start

Order by
☒ Newest ☐ Oldest ☐ Applicant name


Applicant

Filter by applicant name or email

Indexed field value


Filter by indexed field value

All 1 In progress 0 Pending 1 Approved 0 Rejected 0 Revised 0


 Cultural Marketing Sage - 02/14/2023
 Blackboard Administrator <emilie@obfsolutions.com>

Pending


Select badge:


 Cultural Marketing Sage
 After review Pending 1

Powered by Open Badge Factory


Issuing history

You can get your issuing history. From your Course, go to Tools > [Open Badge Factory](#) > Issuing history:



Issuing history

« Back to start

	Recipient	Issued on	Expires
 Je m'engage pour le développement durable	sample.student@brightspacedemo.com	02/27/2023	-

Student view

Your students can view course badges and badge applications from the course > Tools > [Open Badge Factory](#):



Course badges

Here you can see badges that are issued automatically on course completion.



Badge applications

Here you can see badges you can earn by filling an application form.

