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Blackboard-iTunes U: Building Block Administrators Guide Domains Version
1. Introduction

This Administrators Guide is directed at Blackboard System Administrators, iTunes U Site Administrators, Academic Technologists and others who have a need to understand how the Vanderbilt Blackboard iTunes U Building Block functions to integrate Blackboard courses with iTunes U stores of rich media.

Vanderbilt Blackboard iTunes U Building Block is compatible with Blackboard version 8 Academic Suite non-domain and Community System domain implementations.

The building block was tested at The City University of New York (Community System release 8.0.307.14 with domains). It is compatible with and can be used in domain and non-domain implementations.

New Features in Version 2
This version of building block contains a number of new features, including:

- **Debug Suffix** - The iTunes U debug suffix feature has been implemented, and can now be used to debug configuration issues that prevent iTunes U from receiving correct credentials. Although the debug suffix field appeared in the earlier version of the building block, it was non-functional.

- **Automation** - The building block implements an instructor accessible link in the Blackboard COURSE TOOLS panel. The link allows instructors to automatically create an iTunes U course linked to their Blackboard course.

- **iTunes U New-Semester Course Copy** - This new feature works in conjunction with the Blackboard new-semester course-copy capability and allows instructors to associate and link a previous-semester iTunes U course to the current Blackboard course without having to recreate the iTunes U course.

- **Flexible Administrative Access Model** – Previously the administration of the iTunes U building block assumed a one-to-one relationship between an iTunes U site and all Blackboard courses in an instance of Blackboard, based on the assumption that an educational institution would have one and only one iTunes U site. This assumption applied to institutions of all sizes and also to university systems with multiple constituent schools, colleges, institutes, etc. While the new building block continues to support this one-to-one model, it goes a step further to support large or complex educational institutions composed of many schools, colleges, programs, etc., each with a separate iTunes U site but using a single Blackboard instance and shared Blackboard database—Blackboard domains.

- **Additional Permissions: Extending iTunes U Credentialing** – Except for iTunes U site Administrators, who can access iTunes U sites using Apple IDs, iTunes U access model assumes that identity management and credentialing rests with educational institutions.
Access levels for user credentials are assigned by iTunes U site administrators in the EDIT ACCESS section of Apple’s the iTunes U site administration console. Previously, the Vanderbilt Blackboard iTunes U Building Block provided for and passed only instructor and student course-specific credentials to iTunes U based on Blackboard roles. However, the building block version 2 implements a more flexible model and allows iTunes U site administrators to configure extended credentials for which access levels different than instructor or student course-specific credentials.

Some strategies and conventions that illustrate how this extensibility can be used, for example, to provide a shared iTunes store of reusable rich-media learning objects is described in Sharing Reusable Rich Media Learning Objects on page 34 in this document.

**Inline Rollover Help** - Throughout the building block interface, whenever the symbol appears, look for helpful hints about the purpose and function of a building block field.

![Figure 1: Roll-over Tool Tip Illustration](image)

**Blackboard Module Link to iTunes U Content** – In the earlier version of the building block, one could only launch the iTunes application and link to the single iTunes U course associated with the Blackboard course. Version 2 of the building block preserves that access method but adds summary access to potentially multiple iTunes U sections and courses via a Blackboard module summary link. It allows instructors and students to have at-hand and quick access to any of the iTunes U sections and courses for which they have credentials from their Blackboard home page.

**iTunes U Protected and Public Content**
By definition, the concept of using a campus-based Learning Management System such as Blackboard to provide credential mediated access to iTunes U content implies that such content is not accessible to the general public, but is meant to be shared among campus communities of instructors and students.
iTunes U recognizes that institutions may want to provide some content to the general public, and thus provides a method for dividing a single iTunes U site into publically accessible and privately accessible elements. As of this writing, most institutions implemented their iTunes U sites with both kinds of access.

In 2007, The City University of New York (CUNY) enrolled the University and its 23 constituent colleges, professional schools and academic programs in iTunes U. In recognition of the fact that different organizational entities across the university would manage public and private iTunes U content, CUNY and its constituent institutions were given separate public and private sites. Private sites are academically focused and limited to teaching and learning in its widest sense to faculty, students and staff. Such sites are administered and supported by Blackboard administrators, academic technologists, Centers of Excellence in Teaching & Learning (CET&Ls). Management of such sites lies with the university and college provosts.

CUNY also maintains a number of public iTunes U sites that are administered by its Office of University Relations and at the college level by various offices of public and media affairs, institutional advancement and others, all of which represent the public, community affairs missions of the university and colleges. For such iTunes U sites that CUNY maintains for public purposes, neither Blackboard not the building block subject of this document are relevant.

Non-domain functions and certain functions that facilitate public and private access to a single iTunes U site, since they are not relevant in CUNY’s model, are not discussed in this edition of the Administrators Guide.
2. Pre-Installation: Preparing for an iTunes U Domains Environment

Before installing the building block, Blackboard System Administrators must create a new system role, assign privileges to that role and add those who are iTunes U Site Administrators to the Domain Administrators section as follows.¹

- Create a new system role for iTunes U administration

![Figure 2: Blackboard Sys Admin System Roles Panel](image)

- Assign only the single privilege of “Administrator Panel” to this role, as illustrated below:

![Figure 3: Blackboard Sys Roles Privileges Panel](image)

¹ The labels and conventions used here are those adopted by the City University of New York; other institutions will have their own domain schema, system role definitions, etc.
3. Blackboard System Administrator: Install and Setup

The building block iTunes U version 2 is installed as described in the Blackboard documentation covering the standard methodology for building block installations.

1. After installing the building block, the Blackboard SA must go to the BLACKBOARD BUILDING BLOCKS MANAGEMENT panel as illustrated above and set availability to be “Available”. Because CUNY has elected by default not to make the iTunes U link available in its courses or organizations, the SA should set the Course/org default to “Unavailable”. As illustrated below:

![Figure 4: Blackboard Sys Admin Manage Building Block Panel](image)

2. By clicking on “Properties” the Blackboard (Bb) System Administrator (SA) will be able to configure the Help and Mail Host references; the breadcrumb (see arrow pointer below) indicates the location in the building block administration, configuration that is being referenced:

![Figure 5: Arrow indicates breadcrumb links.](image)

3. [Optional] Once installed, the Blackboard (Bb) system administrator (SA) should configure the URL for the Administrators Guide or any other help documents that are created. At CUNY, this Administrators guide as of June 17, 2009 was located on the CUNY iTunes U wiki at:

http://wiki.itunesu.cuny.edu/Blackboard+and+iTunes+U+Integration#AdministratorsGuide
4. [Required] In order to allow those with the new system role of iTunes U Site Admin to configure the building block for their domain, the Blackboard SA must set administrator access rights for that role in the building block. To do so, in the SYSTEM ADMIN TAB, select the iTunes U link in the TOOLS AND UTILITIES panel. Go to Section 2, CONFIGURE PERMISSIONS AND MESSAGING. In Section 1 ADMINISTRATOR ACCESS, ensure that both the SYSTEM ADMINISTRATOR and the ITUNES U SITE ADMIN roles are highlighted then click SUBMIT.

Figure 6: Section 2, where to set administrator permissions for the building block.

Figure 7: Setting Administrator permissions for the building block.
5. [Required] The SA must configure a reference to the local mail (SMTP) host that the Blackboard system will use to send notices to faculty and iTunes U Administrators (iTU_A)

![Figure 8: Blackboard Sys Admin Level Configuration Panel for iTunes U Building Block](image)

6. Additional information about the building block can be viewed by clicking on the View Components tab:

![Figure 9: Blackboard Sys Admin Building Block Information Panel](image)

For the CUNY implementation of the building block, the BB SA has no further responsibility for configuring each domain-related instance of iTunes U.

**IMPORTANT:** For the CUNY implementation, a Blackboard SYSTEM ROLE of ITUNES U ADMIN (code iTU_A) has been established specifically for those individuals who will configure the building block for the
domain for which they are included in the list of Domain Administrators\(^2\). The Blackboard System Administrator must assign this SYSTEM ROLE to those individuals who are iTunes U Site Administrators in the Blackboard System Admin panel’s User function. Additionally, those individuals must be added to the Domain Administrators section for the domain for which they are an iTunes U Site Administrator.

\(^2\) Although iTunes U Site Administrators must be included in the list of Domain Administrators—with the system role of ITUNES U SITE ADMIN—the privileges assigned to them are restricted so that they can access and configure the iTunes U building block only for the domain to which they have been added.
4. iTunes U Site Administrators: Configuring for Domains

For domain implementations, the building block implements a division-of-responsibility model such that once a Blackboard System Administrator has installed the building block and has configure iTunes U Site Administrators with the proper SYSTEM ROLE, privileges and Domain Administration membership, the access control illustrated below is employed:

![Vanderbilt Building Block: Access Control Diagram](image)

**iTunes U Site Configuration**

The iTunes U configuration tool is located in the System Admin tab, in the Tools and Utilities section.
iTunes U Administrative Control Panel: Root Level

Clicking on the link, displays the Root Level of the Administrator Control Panel, as indicated in the breadcrumb. The drop down list shows the list of domains that have been configured in the Blackboard system that potentially can be configured for iTunes U. The Root Level can be used by Administrators who are configuring a non-domains Blackboard implementation. To configure a domain for iTunes U you must have been listed in the Domain Administrator tab and your System Role in the Sys Admin User tab must have been set to iTunes U Sys Admin.

Select the domain you wish to configure and click the configure button.

Figure 12: iTunes U Site Administrative Control Panel, Root Level

Note: Since the building block lists all domains defined in the Community system, the list may include some domains that may not have an associated iTunes U site and appropriate credentials. Blackboard courses in such domains cannot be provisioned with a link to iTunes U.
From the Root Level, if you attempt to configure a domain for which you do not have the proper privileges to access, you will receive an error message like the one below.

![Error](image)

You do not have sufficient privileges to configure domain Hunter.

**Show details**

![Figure 13: Domain Access Control Error Message](image)

### iTunes U Administrative Control Panel: Domain Level

With proper privileges, an iTunes U Site Administrator will see 5 sections. Note that the breadcrumbs have changed from the Root Level to a Domain Level and indicate the specific domain to be configured. Below, to purpose and description of the data and requirements for correction configuration and administration are discussed below.

![Figure 14: iTunes U Administrative Control Panel, Domain Level](image)
Configure Connection

Click on the configure connection button: Configure Connection in order to enter all the necessary information for establishing a connection from Blackboard to your iTunes U site. Section calls for the iTunes U SITE URL—don’t forget to precede it with https:// as illustrated. Also add your site’s SHARED SECRET and ADMINISTRATOR CREDENTIAL.

When its check box has been selected, the Debug iTunes U section allows you to test the credentials the building block sends to iTunes U. This is useful for debugging a connection or access-level permission problem. The debug suffix must be preceded by a forward slash, as illustrated.

IMPORTANT: Be aware of the breadcrumb reference to know where you are in the configuration panels.

Any attempt to access your iTunes U site with the debug feature enabled will cause iTunes U to return a debugging page to your browser and will not initiate the iTunes U application or return a page to your iTunes U site.

IMPORTANT: While debug is enabled access to iTunes U site content is disabled.

The debugging page contains a wealth of information about the credentials that the building block sent to iTunes U based on the configuration that you have established. Once you have corrected any connection or access-level issue, you must disable the debug feature to access your iTunes U site.

[See specimen of the debug report on the following page.]
Figure 16: iTunes U Access Debug Report

Configure iTunes U Permissions and Messaging

This panel allows an iTunes U Site Administrator to assign Blackboard course roles to iTunes U Instructor and Student credentials.

Administrator Access - This section contains the iTunes U default administrator credential for your iTunes U site (grayed out). iTunes U site Administrators can access iTunes U with the Administrator credential, whenever they reveal iTunes U through the building block interface. Multiple delegated administrators can be selected from among Blackboard users using the look-up link. Simply select multiple users; the system will automatically insert commas to separate them. If the send event notice option is enabled, iTunes U site Administrators and instructors will get e-mail notifications when iTunes U is enabled/disabled for a course.

4 REVEAL ITUNES buttons are conveniently placed in other panels and sections and provide Administrator access to your iTunes U site.
In some implementations it may be desirable to enter a group email address or multiple email addresses directly. One option needs to be chosen and the send event notifications box needs to be checked so that event notices are sent to administrators or their delegates.

Figure 17: Configure iTunes U Permissions Panel

Messing

The messaging section provides for email distribution of events concerning the enabling or disabling of iTunes U for specific Blackboard courses. Checking the SEND EVENTS NOTIFICATIONS box will set the

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In some implementations the Blackboard privileges assigned to an iTunes U Site Admin system role may be insufficient to allow a look-up. A workaround for this is to enter individual or group email addresses separated by commas in the box labeled EMAIL ADDRESSES.
system to send out an email message whenever an iTunes U course link is enabled or disabled in Blackboard.

The **DELEGATED ADMINISTRATORS** field uses the **LOOK-UP** button to populate Blackboard **USER NAMES** in the field. Repeating the look-up multiple times inserts multiple **USERNAME**s and automatically separates them with a comma (you need not enter the comma manually).

The look-up and manual entry of email addresses in the yellow box as illustrated in Figure 19: Configuring messaging by manually entering email addresses, provides a flexible way of distributing even notices by email to individuals and groups.

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6 The system uses the email address associated with the user name when sending out notifications.

7 The access configuration for a specific course on your iTunes U site should contain the ${IDENTIFIER} variable as in Instructor [or Student]@urn:mace:itunesu.com:sites:university.edu:${IDENTIFIER}
iTunes U course content with appropriate access-level privileges —typically this is EDIT for instructors and DOWNLOAD for students.

It is important to note that various Blackboard roles in addition to instructor and student can be assigned to the instructor and student credential (as illustrated above in Figure 17: Configure iTunes U Permissions Panel). All roles that are associated with a credential can be seen in the scroll boxes. Select one or multiple Blackboard roles for an iTunes U credential (in Windows hold down the control key to select multiple roles). For example, to provide teaching assistants with the same level of access as an instructor, select instructor and teaching assistant to give both the same iTunes U access level assigned to the Instructor credential. To achieve this simply select both roles by holding down the control key (Windows) while selecting multiple entries in the list. Do the same to assign multiple course roles to the Student credential.

**IMPORTANT:** The Instructor and Student credentials established in this configuration panel are used by the building block to provide access to specific iTunes U rich media course containers associated with a specific Blackboard course where the iTunes U COURSE IDENTIFIER and the Blackboard COURSE ID match.

**Additional Permissions Defined**

This is a new and powerful feature that allows iTunes U Site Administrators to create additional credentials and associate these credentials with Blackboard roles. The building block will send these credentials to iTunes U that, when used with the structures and access-level definitions created on iTunes U, provides a new opportunities and new levels of flexibility for using Blackboard with iTunes U.

This new building block feature breaks down the barriers that had prevented extending credentials and providing for sharing and reusability of rich-media chunks or learning objects among faculty members from within iTunes U. For students, the feature allows administrators to maintain access control yet share portions of iTunes U sites among members of the entire student body.

iTunes U Site Administrators and site designers can create new credentials, associate these with Blackboard system roles, create iTunes U sections and “course containers” with assigned access levels for these credentials.

**Building Additional Permissions**

Here we’ll examine additional permissions and illustrate how to create and associate additional permissions with access levels and iTunes U objects. See the section Sharing Reusable Permissions
Rich Media Learning Objects beginning on page 34 for some ideas on how to use additional permissions.

In section ① name the permission or credential. The name will be filled in to the left of the @ sign and will produce the fully formed credential.

In section ② select the Blackboard roles with which the credential will be associated. By first selecting ROLE TYPE, the available roles for selection will appear in the roles scroll box. Here too, you may select multiple Blackboard roles to be associated with this additional permission. In this illustration, we have selected a ROLE TYPE of PORTAL, since the permission we want to create is not...
associated with a particular course. Having selected portal, we are presented with various roles that have been associated with portal by the Blackboard System Administrator during implementation and configuration of Blackboard. Since we want all faculty in the CO domain to receive this access permission, we will choose the role of CO_Faculty. Were this permission assigned to all students, say at Lehman College, we would select the role of LEHMN_STUDENT, as illustrated in the scroll box.

In section \( \mathbb{3} \) select the iTunes U access type for this section, bearing in mind that all courses created in this section will default to the access type of the section. You can either select an existing section that appears in the scroll box or you can indicate NO SELECTION, if you intend to use the building block to create a new section. The REVEAL A SELECTED SECTION option launches the iTunes application revealing the section that was selected in the scroll box.

If you select existing section, verify that the ACCESS value is set correctly, or it will override any existing value on your iTunes U site and be changed to the value that is set in the scroll box.

If you intend to add a new section to which this new credential has access, you can name it in the ADD NEW SECTION box.

IMPORTANT: Note that the operations performed via the building block can be verified or modified by accessing your iTunes U site as a Site Administrator and making the changes directly in your iTunes U site.

**Configure Automation**

Configuring automation is a critical and time saving feature of the building block that allows faculty to automatically create iTunes U courses, thereby eliminating the need for manual set-up and back-and-forth emails.

However, there are critical and best practice requisites for configuring automation\(^9\):

- You must have created an iTunes U course template. The template will be used to create a new course in the section of your iTunes U site that you have established to receive all such course. Those with instructor and instructor-associated Blackboard roles should be given edit access to courses that were created from the template. Once created, having edit-access will permit instructors to customize their courses for their purposes.

- The target section established at automation set up, will receive all courses that instructors cause to be created from the previously created template. This section must contain appropriately defined iTunes U Instructor and Student credentials. This section will inherit the credential if it is set at the Welcome or root page of your iTunes U site. It is

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\(^9\) Failure to create a template and a target section as described, will cause any attempt by faculty to create an iTunes U course to fail with an error message reporting that iTunes U had not been configured correctly and to contact “your administrator.”
recommended that you set Instructor and Student credentials on the root or Welcome page as follows:

a. Instructor@urn:mace:itunesu.com:sites:yourcollege.edu:${IDENTIFIER}, plus a GROUP ACCESS LABEL of Instructor

b. Student@urn:mace:itunesu.com:sites:yourcollege.edu:${IDENTIFIER}, plus a GROUP ACCESS LABEL of Student

- You must have established the Instructor and Student group access labels for this template in the credential, or you may not be able to correctly define any DROP BOX or SHARED tabs created in a course

**BEST PRACTICE** - You should populate your template with default information that is informative to faculty, recognizing that some faculty may in fact initiate iTunes U courses through Blackboard without having a proper orientation to iTunes U and its facilities for customizing courses in it.

**BEST PRACTICE** - In addition to helpful verbiage in the template description, if you have prepared introductory information instructions for faculty, consider uploading a PDF of it to a tab in your course template. You might entitle it something like "iTunes U: Faculty Overview", "A How To: iTunes U and Blackboard Courses", etc.

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10 See Apple’s *iTunes U Administrator Guide* for using identifier-based credentials, an HTML version of which is [here](#).
Configuring for automation assumes that you have established a course template in the template section of your iTunes U site. Selecting a Template

In section 1 of the panel (See Figure 22: Configure iTunes U Automation Panel on page 21), select the template that will be used to establish a course when a faculty member selects enable iTunes U from within the ITUNES U CONTROL PANEL accessed from the COURSE TOOLS section of the Blackboard CONTROL PANEL.

Selecting an Existing Section

Also in section 1, select the section in which the template will be placed. When placed in the section the template will be given the course title and the iTunes U IDENTIFIER will be the Blackboard COURSE ID.

Reveal Selected Section

The iTunes U button will launch the iTunes application into the existing section of your iTunes U site.

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11 Remember, the templates section of your root or Welcome page will not be visible unless you are logged in as an iTunes U Site Administrator, are on your root page and have clicked on the EDIT PAGE link, top right.
**Add a New Section**
At the administrator’s option, instead of adding the template to an existing section, the building block will create a new section into which the template will be placed.

**IMPORTANT:** The automation function assumes that all courses created during a period of time when a specific automation configuration has been set will use the established template and place it into the iTunes U section that was chosen. However, if the section (or template) is changed, all automation events from that point in time when the change was made going forward will follow the new configuration. At this time there is no automated, convenient facility for moving courses or entire sections to or from section to section. Section names, of course can be updated and it will not affect the building block behavior because it uses the section’s ID and not the name.

**BEST PRACTICE:** It is recommended that the section name identify the fact that it contains Blackboard courses, the semester and the year. Further, it is recommended that each semester a new section be created with a new label. Any previous sections will remain, and any blackboard
course iTunes U links Blackboard courses that link to iTunes U courses in those sections will continue to function properly. It is a good idea to use this scheme from semester to semester, especially if you want to partition courses in a meaningful manner.

At the current time, section ❶ will not be used at The City University of New York. This section accommodates the needs of educational institutions that have a single iTunes U site for public and private (also sometimes called academic or teaching & learning) purposes. Since CUNY follows a model of separate iTunes U sites for academic and public sites, this section should not be used. If used this feature allows instructors to have a publicly available course site in iTunes.

**iTunes U Admin Area: Manage Links**

This dashboard provides an overall view of all Blackboard courses with iTunes U links. The information displayed consists of the Blackboard COURSE NAME, the iTunes U HANDLE the ACCESS TYPE (restricted or public), the number of TRACKS in the iTunes U course and SPACE USED in kilobytes (the iTunes U disk space taken up by the iTunes U course on Apple’s iTunes U servers).

![Figure 23: iTunes U Admin Area: Manage Links](image)

Each course has 3 action buttons associated with it: PROPERTIES, REVEAL (or launch) IN ITUNES and REMOVE. It is important to emphasize that only iTunes U Site Administrators with appropriate access permissions can perform these actions.

Section ❷ Properties shows the Blackboard COURSE ID (also the iTunes U COURSE IDENTIFIER) and the iTunes U HANDLE.
The reveal in iTunes button simply launches iTunes U into the course.

The remove button will remove the course from iTunes U and all links to it in the associated Blackboard course. The Blackboard course itself will NOT be deleted. Using the remove action will be preceded by a warning that allows an administrator to complete or cancel the removal.
5. Instructor Functions

Pre-requisites to Establishing an iTunes U Course

Earlier in Section 3, Blackboard System Administrator: Install and Setup on page 5, the Blackboard System Administrator set the Course/Org Default Availability to “Unavailable”. This means that faculty will not by default see an iTunes U tool in the COURSE CONTROL panel, nor will they be able to establish an iTunes U course linked to their Blackboard course without taking the following steps:

Making the iTunes U Tool Accessible in the Course Panel
To establish access to the iTunes U tool, instructors must first click on the Manage Tools in the COURSE OPTIONS section. Then select the Building Block Tool Availability link.

Figure 26: Manage Building Block Tools: Tool Availability

Place a check mark in the available box. This will cause the iTunes U tool to be available in the tools section, as illustrated in Figure 30 on page 26.

Figure 27: Building Block Tool Availability

12 These are the actions that instructors must take for each Blackboard course that they want to enable for iTunes U. Campus organizations charged with supporting faculty in their use of the iTunes U-Blackboard platforms must ensure that documentation and training sessions explain how to enable courses for iTunes U.
Making iTunes U Links Available for Insertion on Course Pages

Lastly, the instructor must return to the MANAGE TOOLS panel and select Content Type Availability.

![Manage Tools](image)

Figure 28: Manage Building Block Tools: Content Type Availability

Scroll to the iTunes U Link CONTENT TYPE, and place a check in the box to make it available.

![Content Type Availability](image)

Figure 29: Content Type Availability: Enabling the iTunes U Link

This concludes the steps that faculty must take to make building block tools available for creating an iTunes U course linked to a blackboard course.

Next, instructors must enable an iTunes U course. Enabling is an automatic process initiated by instructors and is explained in more detail below.

[This space has been left blank intestinally.]
Establishing an iTunes U Course

Once a building block has been configured for a domain, all Blackboard courses categorized for that domain will contain an iTunes U link in the COURSE TOOLS section launched from the Blackboard course.

When the iTunes U link is clicked, the iTunes U control panel will appear.

Depending on whether or not an instructor had previously created an iTunes U course for some other Blackboard course, the list box may display previously created iTunes U courses. This is to give the instructor the option to copy over iTunes U course information and content to a new course. This is helpful when starting a new semester for a course whose COURSE ID, but little else, has changed.

If an instructor selects a previously created course, once the ENABLE button is selected, the building block will copy the previously select course—including all of its existing design, graphic, description, tabs and audio and video tracks to a new course. The new iTunes U course will have the TITLE and COURSE ID of the new Blackboard course.

The instructor, having edit access to the new iTunes U course has the option to modify the course by changing the description, the design and function of the tabs and by deleting media tracks that are no longer need—this is particularly important for drop box tabs that contain student submissions from students of a previous semester.
Enabling a Blackboard Course by Copying a Previous iTunes U Course

As illustrated in the dropdown box in section 2, Figure 31 (above), when enabling iTunes U for a course, instructors can create an iTunes U from a new-template instance (in which case they make “No selection”, or they can select from any of the previously created iTunes U courses that appear in the dropdown box.

When copying a previously created iTunes U course, instructors should be aware of the following:

The entire course will be copied, except for the Blackboard course title and course id. That information from the Blackboard course being enabled for iTunes will appear instead.

All tabs and all tracks will be copied over. This includes any drop box and shared tabs. Instructors should remove this content if the class roster has changed as any student created content from a previous session may no longer be needed. Failure to delete this content may make it available to the class roster of the new session.

Since all instructor-uploaded tracks will be copied, instructors will not have to upload these audio and video files again (or re-reference them if their meta data appeared in SMART tabs)\(^\text{13}\). Instructors may make whatever changes to the course description are necessary and may delete or add video, audio or PDF tracks as may be required.

\(^{13}\) For more on smart tabs and populating courses using meta data references, see section 6. Sharing Reusable Rich Media Learning Objects beginning on page 24.
**BEST PRACTICE:** Once an old iTunes U course is no longer needed, instructors should disable it by going to the control panel and course tools of the old course to DISABLE iTunes U for that course. iTunes U Site Administrators may also remove the iTunes U course in the building block’s manage iTunes U links panel (see Figure 25: iTunes U Admin: Remove iTunes U course warning on page 23).

Once a course is enabled in iTunes U, instructors will see information about the course that they had enabled, as shown in Figure 32. Included will be the number of audio, video and PDF files or tracks and the aggregate size or space that the course contents take up on Apple’s servers.

A REVEAL button will launch the iTunes application into the iTunes U course, providing the instructor with EDIT access to his or her course.\(^{14}\) From this panel an instructor can disable the iTunes U course.

![Figure 32: Blackboard iTunes U Control Panel with iTunes U link...an instructor’s view](image)

The DISABLE button will remove the iTunes U course for this blackboard course and all links in the Blackboard course to the iTunes U course. The Blackboard course itself will NOT be deleted and will NOT otherwise be modified. When the disable button is pressed, the following warning will appear, giving the instructor the opportunity to confirm or cancel the removal.

![The page at http://imsstage.cuny.edu says:](image)

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\(^{14}\) Section\(^{9}\) indicates that the course is restricted. In some institutions, this may show non-restricted or public course. CUNY’s courses currently are all restricted.
IMPORTANT: Section 2, which here contains information about the additional iTunes U permission (or credential) that had been associated with all instructors (see Figure 20: Additional Permissions: permission properties on page 17). Such additional permissions, being associated with the instructor ROLE, will appear whether or not iTunes has been enabled for a specific Blackboard course.

Enabling iTunes U Links in Blackboard Courses
Once an iTunes U course is enabled, instructors may establish links to it from any section in a Blackboard course where the Blackboard EDIT VIEW/DISPLAY VIEW link appears. This includes:

- Course Information
- Course documents
- Assignments
- External Links
- other pages where this drop-down appears

Even when instructors have not enabled iTunes U for their Blackboard course, the EDIT/DISPLAY VIEW function will present an iTunes U link as illustrated below.
However, any attempt to add a link before enabling an iTunes U course will result in the following error:

![Image of error message]

iTunes U is not activated for this course. Please go to the course control panel and enable it.

This document is not intended to be a faculty guide for getting the most out of iTunes U course design and functionality, iTunes U administrators, in concern with faculty, course designers and academic technologists must collaborate to make the most of using rich media in teaching and learning with iTunes U

**Impact of Blackboard’s Course Copy on iTunes U Links**

**Copying to an Existing Blackboard Course**

It is sometimes desirable, when copying one Blackboard course (the source) to another (the target), to reuse the iTunes U content of the source Blackboard course for the new Target Blackboard course. To do this is very simple and can be done by instructors when they enable iTunes U for the target course that was created during the copy process.
To do this, instructors should select the Source course name in the target course’s iTunes U panel from the dropdown list. This will copy over all the tabs, audio and video content as well as descriptions and links from the source iTunes U course, but will place the target course’s Blackboard course title and course ID in the iTunes U course to be enabled.

If the source iTunes U course is no longer needed, it is suggested that it be deleted, either by the instructor through the disable function in the course panel, or by the iTunes U Site Administrator through the building block link management function (see Figure 23: iTunes U Admin Area: Manage Links on page 22).

**IMPORTANT:** When content is copied over, all content including drop box and tab audio, video and PDF files are similarly copied over. This may not be efficient or appropriate, since drop box content uploaded by students from a prior class is no longer relevant, and shared content uploaded by students enrolled in a prior session will be seen by those in the current session. Instructors should delete any tabs or content that is no longer needed.

**Copying to an Existing Blackboard, iTunes U Enabled Course**

In instances when Blackboard course content is copied to another Blackboard course that had already been iTunes U enabled, it will not be possible to copy-add the source iTunes U course content to the target iTunes U course content. To illustrate the issue, here is a Blackboard course titled SOURCE COURSE. By clicking on the REVEAL IN ITUNES button in the panel on the left, the iTunes application loads the SOURCE COURSE. Blackboard and iTunes U are in sync.
Figure 38 illustrates a Blackboard course titled TARGET COURSE. By clicking on the REVEAL IN ITUNES button in the panel on the left, the iTunes application loads the TARGET COURSE. Blackboard and iTunes U are here too in sync.

Aside from audio, video and PDF files that the instructor might have uploaded, the SOURCE COURSE may contain student produced content uploaded to drop box and shared folder tabs that may not be appropriate to include in the TARGET COURSE. No matter the kind of copy that one might be considering, Blackboard and iTunes U courses should be kept in sync.

After completing a course copy, from SOURCE to TARGET, the Blackboard sends out an advisory e-mail notice that the copy has been completed.

This course copy action has been successfully queued. An email will be sent when the process is complete.

Blackboard provides for three kinds of copying modes: 1) Copy course materials into a new course, 2) Copy course materials into an existing course and 3) Copy course with users (exact copy). No matter the mode, when a course with iTunes U enabled is copied, the links to iTunes U will be the same links as in the source course. As a consequence, the Blackboard course ID of the target course and the course ID of the iTunes U course will not match, and the links copied over will be to the iTunes U course that had been created for the source course.
The out-of-sync state that resulted from the course copy is illustrated below in Figure 40. Note that the REVEAL IN ITUNES button in the Blackboard TARGET COURSE panel launches not the TARGET but the SOURCE COURSE iTunes U content.

The out-of-sync issue is not one that is easily dealt with and cannot be effectively resolved through the building block functionality alone.

The options for correcting out-of-sync status are:

1. **iTunes U SOURCE COURSE Content Survives**: disable iTunes U for the TARGET COURSE. The iTunes U course and all content in it will be deleted. Enable iTunes U for the TARGET COURSE and base it on the iTunes U SOURCE COURSE as illustrated in Figure 36 on page 31.

2. **iTunes U TARGET COURSE Content Survives**: Since iTunes U had already been enabled for the Blackboard TARGET COURSE, no further action is required. The actions taken with respect to the Blackboard and iTunes U SOURCE COURSE will depend on policy and need as each case requires. If the iTunes U SOURCE COURSE content is duplicative or no longer required, it may be disabled by the instructor via the course panel or removed by the iTunes U Site Administrator in the MANAGE LINKS section of building block administration.
6. Sharing Reusable Rich Media Learning Objects

This section is not meant to be an exhaustive treatment of the strategies that educational institutions might consider when deploying and configuring iTunes U.

In this section, we’ll explore by example how iTunes U can be extended beyond the construct of Blackboard Course-to iTunes U course linkage to include structures and processes for sharing and reusing rich media.

Creating an Faculty-wide Permission

In this example, we want to create a section of course containers that can be used by faculty to store audio and video files, to contribute to, as it were, a shared collection of such files that all faculty members might have available for use in their Blackboard courses.

Knowing that the iTunes U instructor credential or permission (not to be confused with the Blackboard role) has been reserved by the building block for access to a specific iTunes U course that corresponds to a specific Blackboard course, we’ll create another permission and call it “CUNY-faculty”. We could have just as easily have called it “ALL-Faculty” or Hunter-Faculty or Hostos-Faculty or something else that might remind us of the e of the coverage of the permission. We will then associate this permission with the Blackboard roles of INSTRUCTOR and TEACHING ASSISTANT.

These Blackboard roles will be assigned the credential CUNY-faculty @urn:mace:itunesu.com:sites:cuny.edu in addition to any other credential that might also have been assigned to these Blackboard roles.

Along with this additional permission, we’ll create a section on our iTunes U site called “Shared and Reusable Teaching & Learning Objects”—certainly a mouthful but a title that will make clear what the section and the iTunes U courses in the section contain. We could have created the section from within the building block at the same time we created the additional permission, or we could have created the section before then by accessing iTunes U as a Site Administrator and creating the section manually directly in iTunes.

It’s a good idea, to review the configuration of the section that was created directly in iTunes U. Here’s a view of the edit Access panel showing the section and the permissions created for it.
Edit Access
Assign access levels to credentials to control the actions users have within your iTunes U site. The access level you define for a credential at a given page, section, or course is inherited throughout all descendant pages of your site, unless they are overridden by a descendant page definition.

**Figure 41: Viewing a newly created permission in the Edit Access panel of iTunes U**

Creating a Shared Section
Having created the permission and the section, we lack only an iTunes U course. Building block automation has not been extended to the creation of new sections that are not associated with Blackboard courses, to these shared containers must be set up by an iTunes U Site Administrator directly in iTunes U.

In this example we have established a section for sharing media called “Shared & Reusable Teaching & Learning Objects”.

**Figure 42: Section showing Welcome Page and Course container icon links**
Except for the shared media container, the other icons represent, not iTunes U course, but welcome page links to courses as a way of illustrating the organization of content at lower levels than subject areas. But the structure, categories and how one uses welcome page, course and tab objects in iTunes U may differ from implementation to implementation. Certainly a flat structure that utilizes only course containers and tabs within course contains might suffice to organize shared content.

In addition, while we had indicated that the CUNY-Faculty permission had edit access level privileges, one might also consider granting shared privileges and limiting the edit access level to a subset of individuals. But this is a subjective matter to be decided by implementers.

Here by way of example is a course container under Philosophy:

<table>
<thead>
<tr>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Stuart Mill</td>
</tr>
</tbody>
</table>

Last Modified: Nov 17, 2008
Total Tracks: 27

Figure 43: iTunes U course of shared, reusable content

The course containers might be organized by period, school of philosophy, philosopher or some other categorization.

All that remains is for content to be uploaded to the shared courses in the section.

Here’s the open course show content that is accessible to all faculty. Our final task is that knowing there is content that we would like to use in our Blackboard course, we’ll create a smart tab in our blackboard course and link it to the content here.

Figure 44: Shared course with track
Next, we’ll open the Blackboard course I’m teaching and click on the iTunes link in the Course Panel and open my course in iTunes U, as shown in Figure 45: Course with smart tab set to search by Title on the following page.

Notice that the tab type of “Smart” has been selected. This will cause iTunes U to search the entire site for the content that matches the search criteria. If a match is found, the metadata of the content, the attributes of the content are entered into the course, in this case course “test 1”. Notice that iTunes U updates the tab with meta data. The original track remains in the course in the Shared & Reusable section of the site, perhaps to be used simultaneously in another course or at some other time.
To add additional content to the Smart tab, just click on the + sign as illustrated\(^\text{16}\):

The Smart tab function will locate any content anywhere on an iTunes U site based on search criteria. If that is the case, why not just share content among the specific iTunes U courses linked to their Blackboard course? There are two reasons that militate against such an approach:

1. One individual courses linked to a blackboard course are not accessible by all faculty; they are restricted to the faculty members or teaching assistants associated with a course. So, it is not practical to discover and know the search criteria that one might use.

2. The second reason has to do with site organization, management and control to allow the aggregation of content in a meaningful way that supports the organizing taxonomy and structures that are most helpful to faculty in locating such content.

\(^{16}\) When adding references to multiple pieces of content in the Smart tab, pay particular attention to the OF THE FOLLOWING CONDITIONS ARE MET value; you may need to set the value to "All" or "Any" depending on requirements for additional content. See Apple’s *iTunes U Administrator Guide* for more information.
So this is a beginning that might suggest just one way of structuring and using iTunes U in conjunction with Blackboard that have not previously been considered. There are certainly more ways to explore.

7. **Blackboard Module Link to iTunes U**

**Why a Module Link?**

Thus far we have illustrated and discussed, three different ways by which instructors and students gain access to iTunes U content:

1. Students gain access to iTunes for their blackboard courses via links that are placed in courses by instructors (see Enabling iTunes U Links in Blackboard Courses on page 29)

2. Instructors, of course, may also use the very links they established for students to access iTunes U course content, but instructors may also use the iTunes U link in the link the iTunes U Control Panel as illustrated in Figure 32: Blackboard iTunes U Control Panel with iTunes U link...an instructor’s view on page 28

3. When additional permissions or credentials are associated with the INSTRUCTOR or FACULTY role created in the Additional Permissions section of the building block—as discussed in Building Additional Permissions beginning on page 16—faculty may gain access to the iTunes U content associated with these credentials via the iTunesU [course] Control Panel, as illustrated on page 28.

How then to access content when additional permissions are associated not with INSTRUCTOR or FACULTY roles, but with the STUDENT or some other role? The answer is to establish a module on the Blackboard home page that will aggregate a link to iTunes U for all credentials that a Blackboard user might have. The module link offers an easy and convenient way for accessing all the iTunes U content a user is eligible and has permission to access.

**Administering and Creating a Module Link**

At CUNY, the creation of iTunes U module links on the college home page is a centralized responsibility reserved for the Blackboard System Administrator.17

To create an iTunes U link on the home page, first access the Module link as illustrated below:

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17 It is the convention at CUNY that Blackboard iTunes U modules for the various college domains are created and administered centrally by Blackboard System Administrators. Certain other Blackboard modules may be wholly within the purview of college Domain Administrators.
Next, you will need to add a module. In a Blackboard domains environment, it will be necessary to set up a module for each domain that will have a module with an iTunes U link. Click on ADD A MODULE and begin to add the module properties:

Figure 48: Module link in Blackboard Community System - Management grouping

Figure 49: Adding module properties Title and Type
**BEST PRACTICE:** At CUNY, the convention of using the college name or abbreviation plus + iTunes U has been established for naming the module, such as “CCNY iTunes U”, “CSI iTunes U”, “Bronx CC iTunes U”, “Lehman iTunes U”, etc..

For **MODULE TYPE**, select iTunes U from the dropdown list. Make the **REFERENCE NAME** the same as the **MODULE TITLE**.

The remainder of the module should be configured as illustrated. Since this module is specific to CCNY, it will be made available only to the CCNY roles in the dropdown list. This is necessary to ensure that the link on the home page is associated with the correct iTunes U site for the domain being configured. Users should not be allowed to personalize or detach the module.

![Figure 50: Completing iTunes U module configuration](image)

This completes the configuration of the module.
Next you will be asked to modify the module in order to implement it for the domain in question. This is illustrated in below.

In section 1, open the dropdown box and select the domain being implemented. The text description can be left as is, or can be customized. This is the description of the link to iTunes U that will be seen in the module on the home page. Submit the entry.

![Modify: CCNY iTunes U](image)

Click Submit to finish. Click Cancel to quit.

**Figure 51: Implementing the iTunes U module for a domain**

Here then is the module that was just created as it is listed in the module administrator panel:

![Modules](image)

**Figure 52: Created module as it appears in the module Administrator Panel**
All that remains to be done at this point is to install the module on the Blackboard domain home page. This is done by selecting and MODIFY CONTENT button on the domain home page:

![Figure 53: Modify content button domain home page](image)

Select the appropriate module by placing a check in the box to the left of the module. The result is a link on the domain home page:

![Figure 54: Module link and returned iTunes U page](image)

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18 At CUNY the convention is that implementing university-wide conventions for such as home-page content is a function assigned to the Blackboard System Administrator.