Contents

Logging In

For production: log in at coursedog.cuny.edu
For training and testing: log in at coursedog-test.cuny.edu

1. Select 'Click to Sign In'
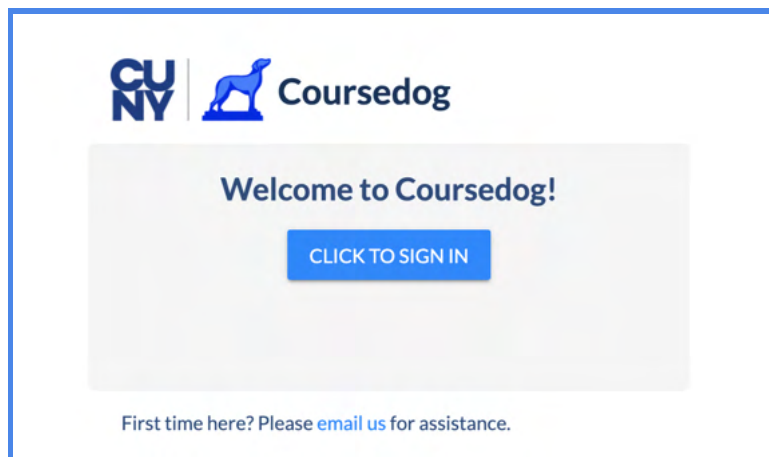
2. You will be redirected to CUNY's SSO login page, where you can enter your CUNYFirst credentials.

Note: The system times out after 90 minutes of inactivity. You must have the Security (from your Academic Institution/Org) and the Campus Administrator role association in CUNYFirst to have Campus Admin role access in Coursedog. Additionally, your BUSN email must be checked off on your CUNYfirst account.
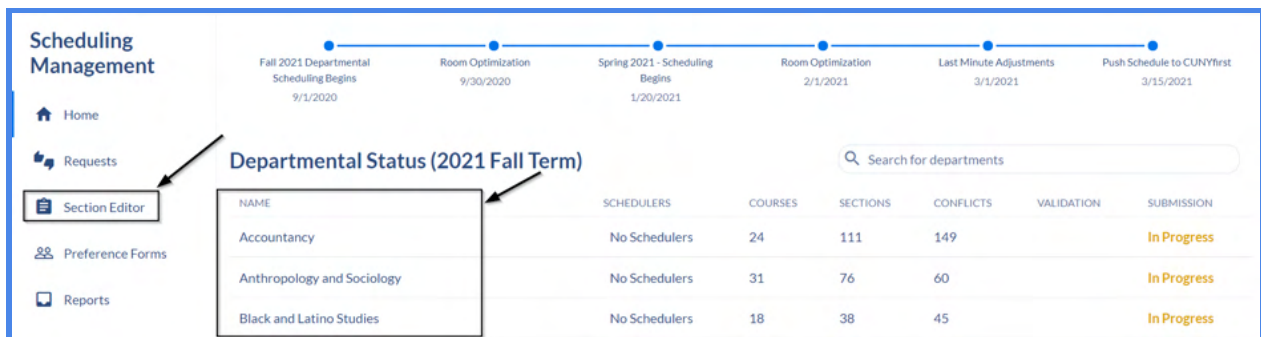
3. When you are logged in, validate that you can see the Scheduling and Events Products.
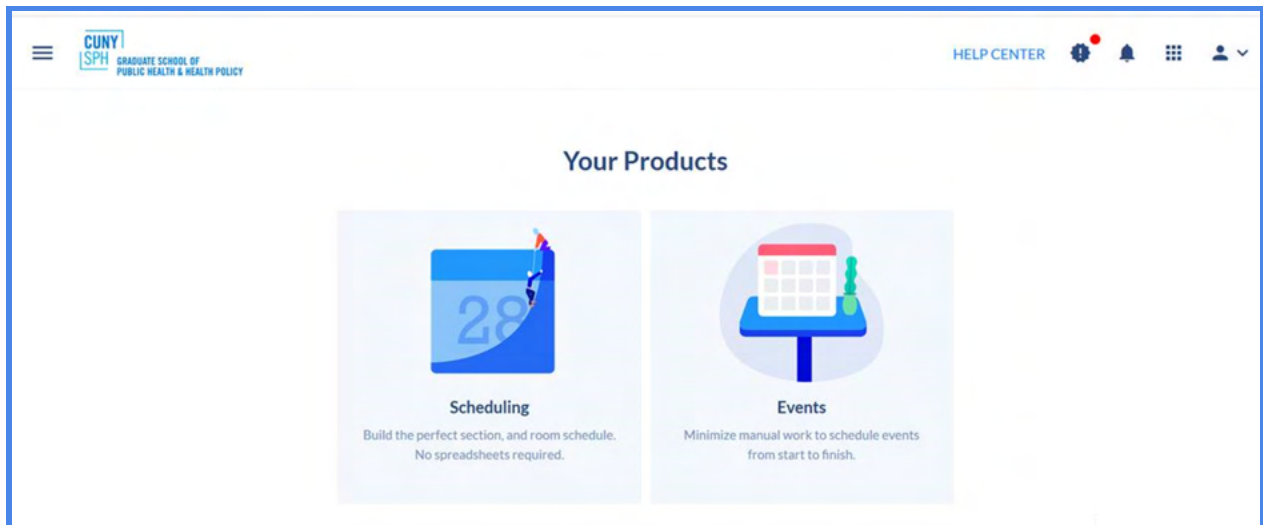
Navigating to the Section Editor

In order to view and manage the Schedule of Classes for a particular Terms, there are two ways this can be done:

1) Click **"Section Editor"** on the left navigation if you want to see **all** sections you are permitted to view.

2) Or click on an individual department, underneath "**Departmental Status**" to see sections within specific department(s).

Note: *The department data shown above (Courses, Sections, Conflicts, Status) refreshes each time the user logs in.*

3) In the **"Section Editor"**, by default, you will be presented with a list of all courses in the department that can be expanded to show their sections:
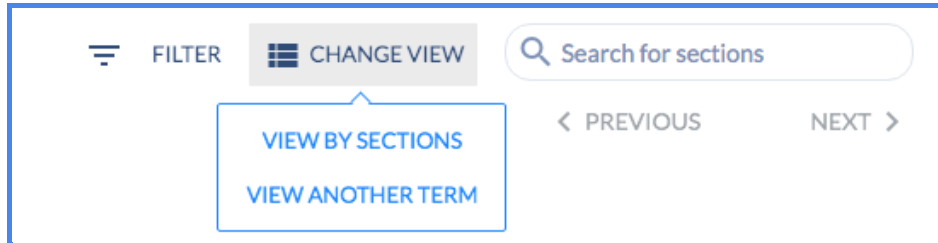
Note: Next to each course that is scheduled for the upcoming term, the Academic Career will display next to it to notify users which Academic Career this Course belongs to. This will also show in the Section Editor of the Class Section.
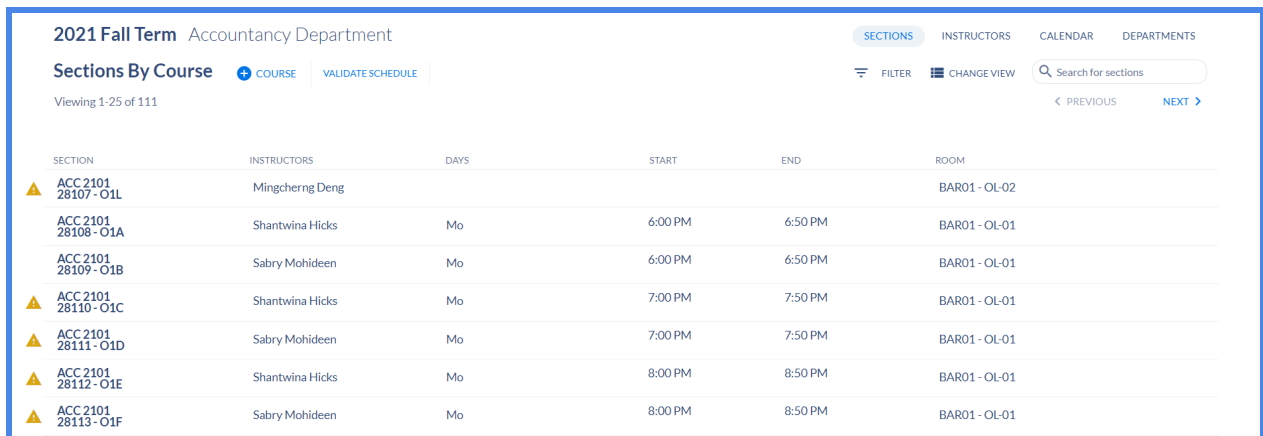
4) In order to change the view to all class sections, next to the Search engine field on the top right corner, click **"CHANGE VIEW"** and select "**VIEW BY SECTIONS**" on the top right corner of the screen.

5) In order to make navigating the schedule easier, you can filter the courses or sections that are being displayed by selecting the "**FILTER**" button next to the and use the filters.
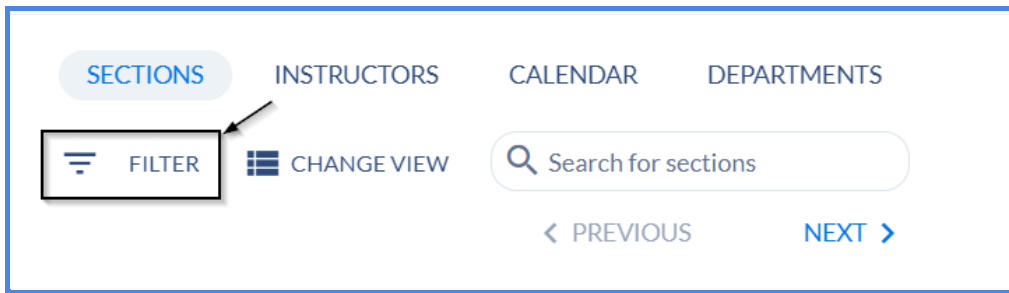
SECTIONS	INSTRUCTORS	CALENDAR	DEPARTMENTS

FILTER ≡ CHANGE VIEW 🔍 Search for sections

< PREVIOUS   NEXT >

Course & Section Filters   ✕

✕	Where	Academic Org ▾	Contains ▾	English ✕ ▾
✕	And ▾	Class Type ▾	Contains ▾	Enrollment Section ✕ ▾

⊕ ADD FILTER

CANCEL   **APPLY FILTER**

Note: *If you are searching "By Courses," the filter results will show all courses where at least one section matches filter criteria. If you search "By Sections," it will only show relevant sections that meet filter criteria: details can be found in this* *freshdesk article*

Changing the Viewing Term

1) To change the term select the term in the upper-left corner. Hovering over the term will cause '*View a different term*' to appear:
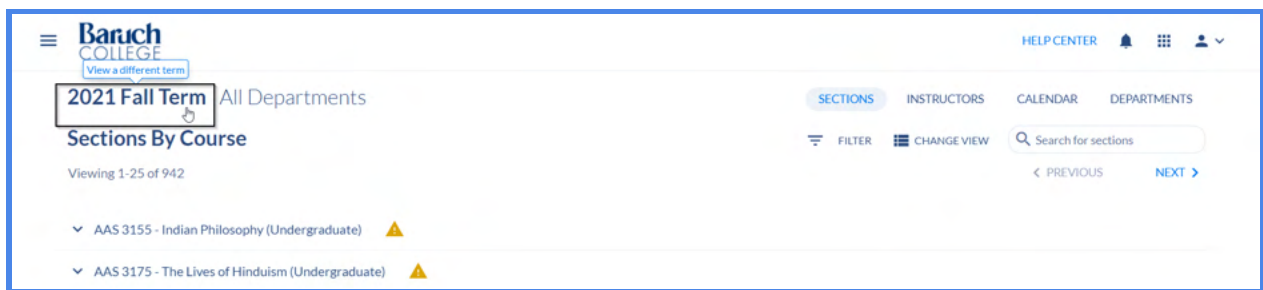
2) Select the viewing term from the drop down menu before selecting the '**VIEW THIS TERM**' button.
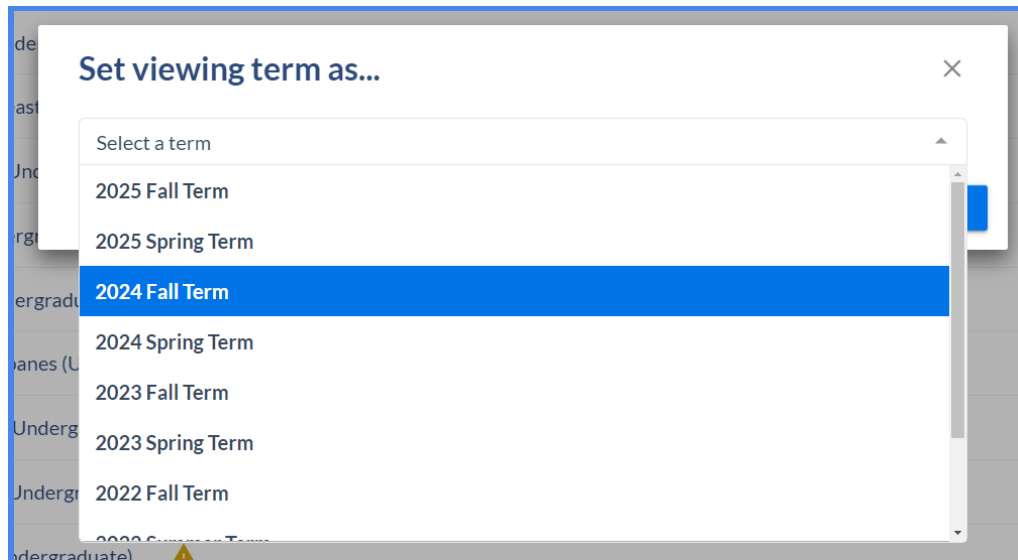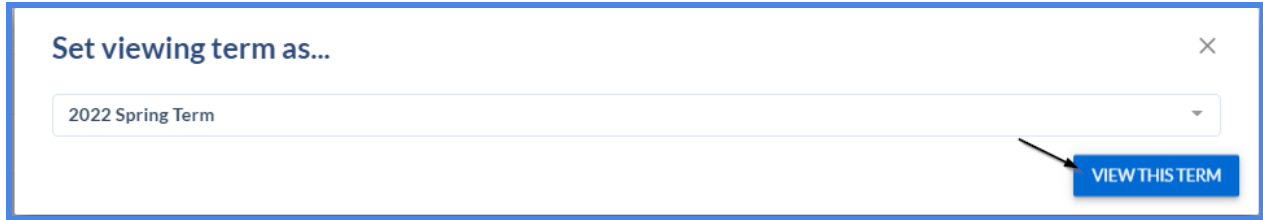
Note: *Scheduling Campus Admin and Scheduling Faculty Workload Coordinators have access to view Historical Terms (i.e. For Purposes of Recreation of Records/Faculty Workload Edits etc…).*

Configuring Your Scheduling Environment

The below configuration items should be set up prior to department schedulers getting access to the system.

Notification Events

Notification Events enable administrative users to configure a customizable notification to send to other users. This is most often used to notify users of all upcoming key dates in the academic scheduling cycle. When event notifications are sent out, users will receive a notification within Coursedog and over email.

Adding/Editing Notification Events

1. Notification Events can be added and edited in Settings → Notification Events
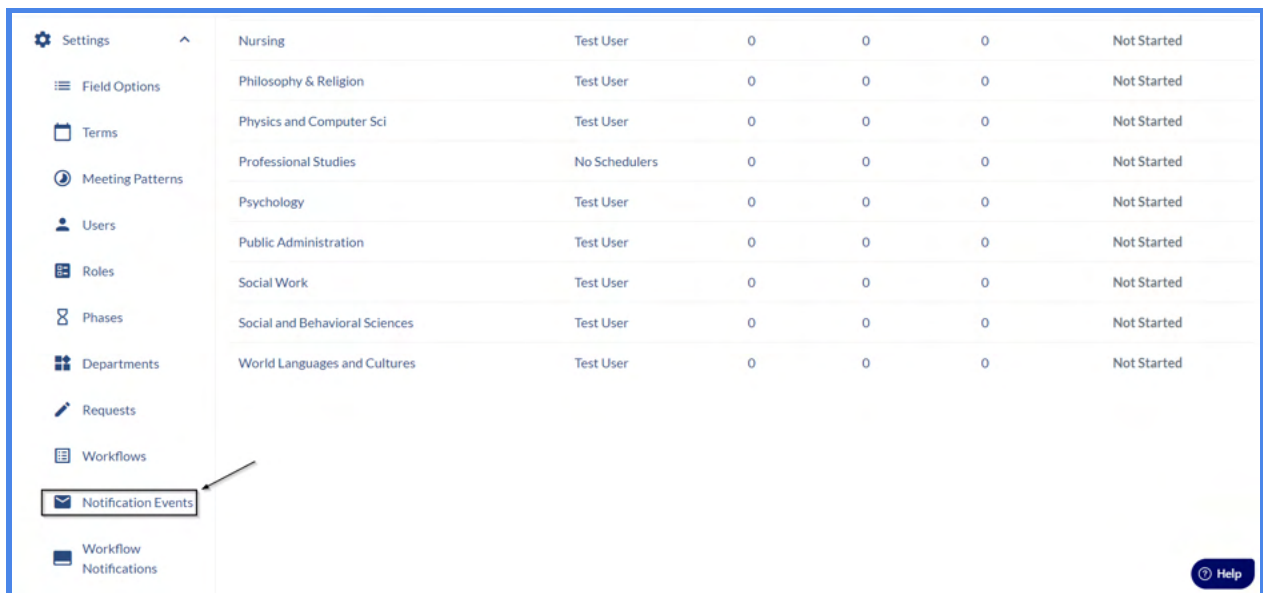
2. To add an event, click on the **"+ Event"** button on the top of the page. When clicked, the following modal will appear with the below settings:

Notification Events

➕ EVENT

EVENT NAME	SEND AT	CREATED BY	STATUS
Scheduling Begins	4/1/2020		Sent
Room Optimization	5/10/2020		Not Sent
Last Minute Adjustments	5/20/2020		Not Sent
Push Schedule to SIS	6/1/2020		Not Sent

- <u>Event Name</u> - This is the name of the event, and also the subject line of the email to be sent
- <u>To All Users</u> - Select this if the notification should be sent to all users
- <u>To Specific Users</u> - If the notification is being sent to specific users, populate this field with the users who should receive the notification
- <u>To Specific Roles</u> - If the notification is being sent to specific roles, populate this field with the roles that should receive this notification
- <u>Send Date</u> - The date the notification is sent (by default it is sent at 12:01AM PST)
- <u>Status</u> - Indicates whether or not the notification has been sent
- <u>Template</u> - Enter the content of the notification which will be delivered within Coursedog and over email
- <u>Add Attachment</u> - Add any attachments you would like delivered with the notification event

3. Once you have filled out the above settings, select **'Add Event'**

Notification Event Timeline

The upcoming timeline of notification events will be displayed on the Coursedog Home page above the Departmental Status table. This can be used to identify the upcoming steps in the scheduling process.

- Notification Events that have passed will appear as a blue circle
- Upcoming notification events will appear as a grey circle

Note: *If you are sending the notification event(s) to specific users/roles, the user will be able to see the message displayed on the notification event timeline by hovering over the notification event itself.*
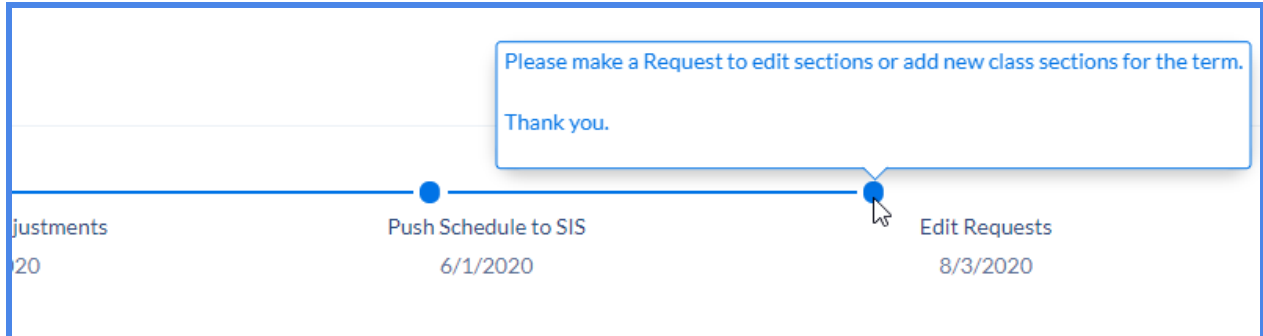
Future Action Dates

At a certain point in the scheduling cycle Department Schedulers can have their access to editing the schedule freely revoked. Future Action Dates can be utilized to accomplish this. When a Future Action Date defines which permissions should be locked for Department Schedulers and is sent on a specific date, this will notify the users via email/notification event(s) that it has been executed. After this point in time they will need to submit requests for any changes they would like made to any of their departments' sections in the schedule.

For example, when Department Schedulers finalize their class schedule for Fall 2021 by February 7th 2021, February 8th 2021 and onwards, Department Schedulers will need to submit requests to any changes they would like made on their class schedule.

Note: *Please consult with CUNY OUR to assist in the creation of Phases to be attached to a Future Action Date (See 'Phases' section below).*

*Once the date of a Future Action Date has been executed ('Send Date'), the 'Roles' field will permanently change permissions to match what is located in the future action 'Permissions.' Once this action takes place the **roles are set until another future action date updates them**.*

*After the date has passed, the **future action no longer** has any functionality. If you change the 'Send Date' of a future action that has already occurred, this does not undo the role change; it simply adds a new trigger to update permissions on the new send date. Future Action 'Send Date' will activate @3:01 a.m. EST. Send date must be at least 24 hours before it is executed.*
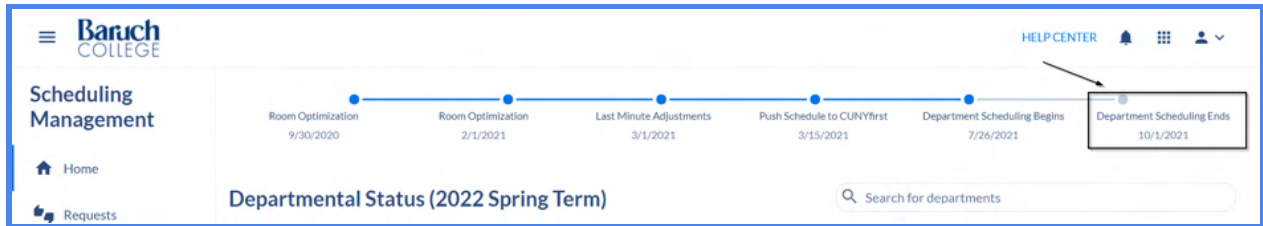
Phases

Phases are a combination of role and field permissions and can be associated with the terms as your scheduling cycle changes, rather than having to depend on manual changes to role and field permissions as this happens. When a phase is associated with a term, and a user is within that term in scheduling, the permissions defined in phases will override the default permissions set in either Roles or the Section Template.

Phases can also be attached to a *Future Action Date*, so that the phase can be executed on a specific date and will be notified to the specific users via email and shown on the Notification Event Timeline on the homepage.

For example; "Department Scheduling Begins" phase for all Department Schedulers to create the schedule for Summer/Fall 2021 Terms will start on 03/15/21 (All fields in the Section Editor are editable).
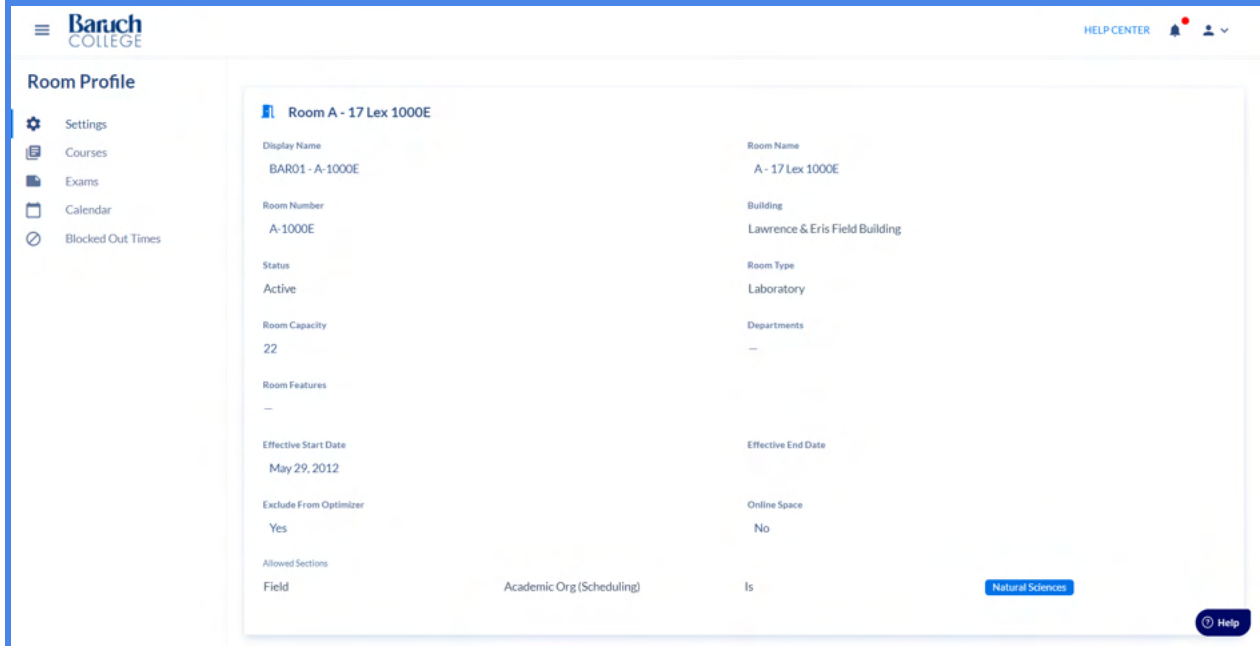
The "Scheduling Edit Requests" phase for all Department Schedulers to stop creating the schedule of classes for the Summer/Fall 2021 Terms and start initiating Requests for Section Changes and/or Adding New Sections (All fields in the Section Editor are locked and view only).

Note: *Scheduling Campus Admin should reach out to CUNY OUR to be able to assist in implementing the Phases for their Campus so that this can be created in their Respective Instances and be used accordingly based on Scheduling business process.*

Room 'Allowed Sections'

In Coursedog's Scheduling Management System, you can manage exactly what types of sections are allowed to be scheduled in each room.

For example, room A-1000E is a Laboratory Classroom and it should only be assigned to Biology and Chemistry courses within the Natural Sciences Department. If Allowed Sections fields are configured only for Biology and Chemistry Courses, this facility will only be used for these courses when manually assigning rooms or running the optimizer.

Note: Setting the 'Allowed Sections' fields for particular rooms are hard constraints, where if the user searches for these rooms in the Section Editor within a course that does not fall under the allowed fields defined in the Room Profile, they will not be able to see the room. Please consult with CUNY OUR if you have facilities that are truly owned by specific departments/courses where no other courses/sections can be scheduled in, a list of these facilities will be sent for you to fill out for them to complete this process.

Global Blackout Dates in Events

Global blackout dates can be used to make rooms unavailable for events while academic scheduling is occurring.

For example if the Spring 2021 term is currently being scheduled, and runs from January 1st - May 7th, campus admins can blackout this date range to ensure all users in events will not be able to book any event within that window of time due to conflicts that could arise from classroom use. Once the schedule is finalized for Spring 2021 campus admins can remove these blackout dates so that events can be booked during this time around academic class meetings.

Note: You must navigate to the ***Events platform*** to configure Global Blackout Dates.

Blackout Dates for rooms in events are distinct from **Blocked Out Times** for rooms in scheduling. **Blocked Out Times** for rooms in scheduling only impact room assignments in scheduling and are unrelated to room assignments in events. You can read more about blocked out times in scheduling <u>here</u>.

1. To add institution wide blackout dates in the ***Events*** platform, go to the top right corner and select the grid icon and click on ***Events***.
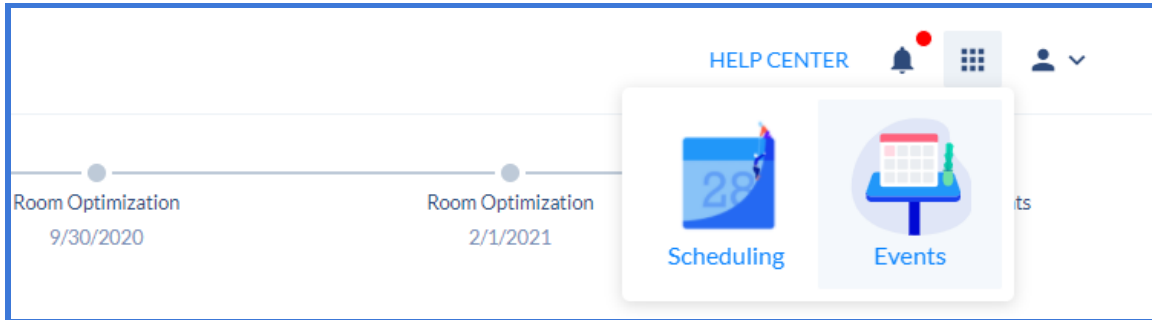
2. Once you land on the ***Events*** platform, navigate to 'Settings'
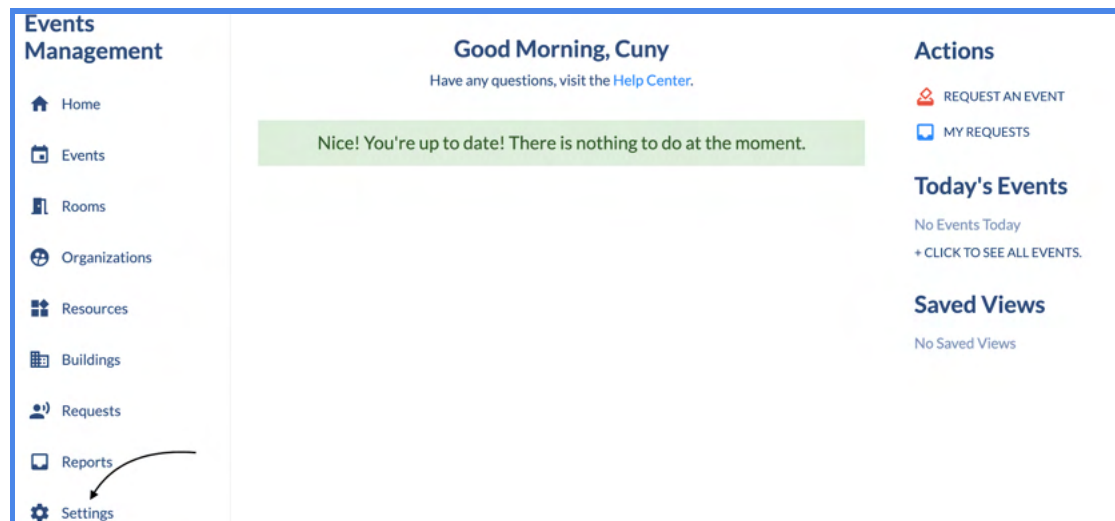
3. Select '**Blackout Dates**'
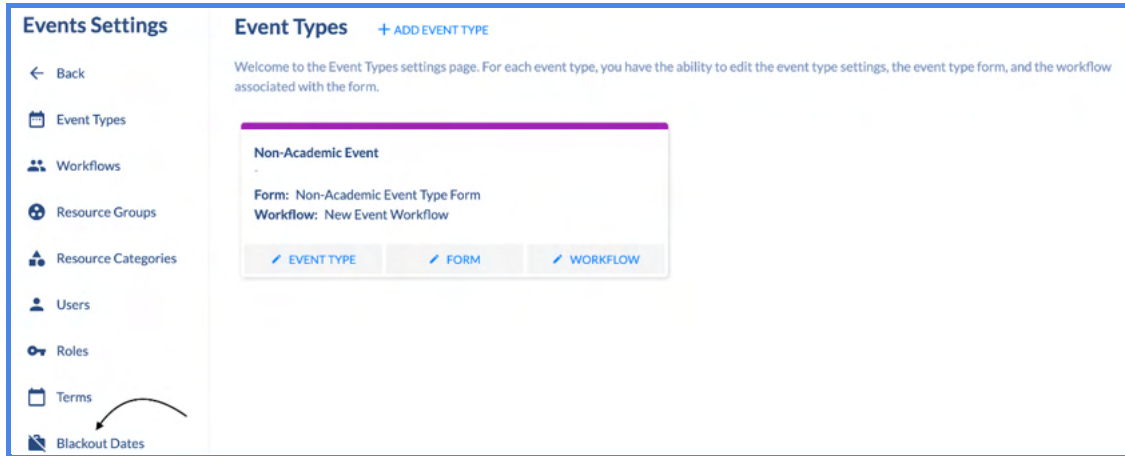
4. Select '**+ Add New Blackout Dates**' and add '*Start Date*,' '*Start Time*,' '*End Date*,' and '*End Time*'
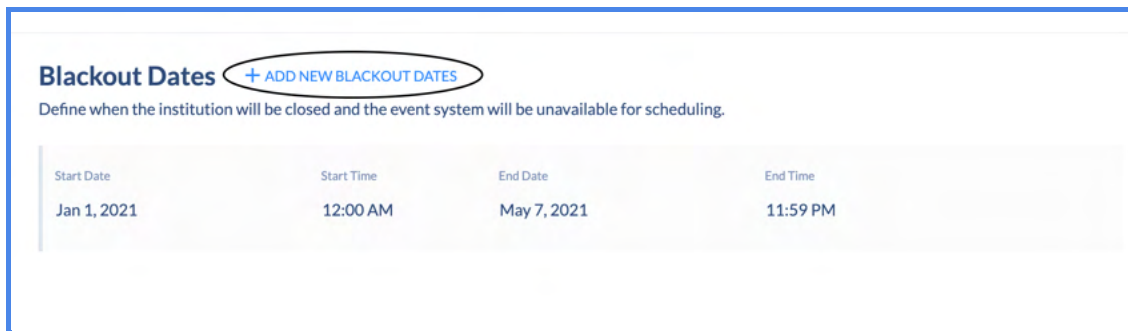
Once the schedule has been finalized for a given term the institution wide blackout dates for that term should be removed in the *Events* platform so that events may be booked in rooms around class meetings.

Recurrence Patterns for Blackout Dates

By default, blackout dates in events will blackout **all dates** within a certain date range. Using recurring dates will make it such that only **certain dates**, based on days of the week, are blacked out within the specified date range. For example, in the below screenshot, any Su/M/W/F/S between Oct 2 and Oct 31 would *not* be considered a blackout date, and users would not be notified of a blackout conflict when requesting an event, whereas any T/Th between Oct 2 and Oct 31 would be considered a blackout date. Any Tu/Th outside of this date range would *not* be considered a blackout date.

Rollovers

Rollovers are a way to copy a Class Schedule from a previous term to an upcoming term.To save time building the class schedule from scratch every term, the user has the option to rollover an entire class schedule. Users also have the option to use filters to include or exclude specific fields within the section editor and its values from rolling over to the upcoming term (e.g. Specific Courses, Assigned Instructors, Rooms, Days/Times etc…). If any of the fields are excluded from the Rollover, the value returned to the schedule of classes will be empty. Please take note, there are two types of Rollovers in Coursedog, **SECTIONS Rollover** and **RELATIONSHIPS Rollover**. **SECTIONS Rollover** will copy the courses and its class sections scheduled from a previous term to the next. **RELATIONSHIPS Rollover** will copy over Relationships (i.e. Combined Sections) from the previous term to the next. When executing a Rollover, there are three stages to this process;

1. **General Settings** - On this page, the user is able to select which Term they would like to Rollover and select fields to be Included/Excluded from the Rollover.
2. **Exceptions** - This page allows the user to exclude specific Sections of a Course and/or exclude Courses (including its Class Sections) from the Rollover. If performing a Rollover for Relationships, this page is where users are able to exclude/include specific Relationships from the Rollover.
3. **Rollover** - This page will list the breakdown of how many class sections/courses will be rolled over, including the list of Section Fields that will not rollover by default and including the ones that were selected from the user. If doing a Rollover for Relationships, this show the breakdown of how many Relationships will be rolled over

To learn more about Rollovers, click on the "**LEARN MORE**" icon underneath the Rollovers page for further explanation on the functionality and to view FAQs.
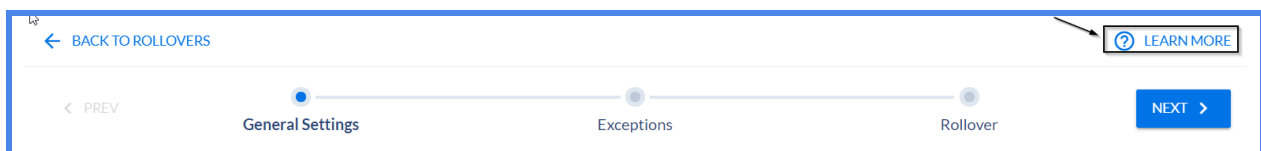

Note: This is the same functionality for rolling over the previous schedule of classes to the next from the 'Copy Prior Term to Term' page in CUNYfirst. When performing a Rollover, it is recommended to go over which courses and number of class sections that will be included/excluded from the upcoming term to avoid and save time from Cancelling multiple Class Sections in the Section Editor. Please avoid running this more than once (if rolling over the entire schedule), as this will generate the Class Numbers for each of these class sections when nightly sync is turned on to push into CUNYfirst the next day.

Only Central Super Admin and Scheduling Campus Admin are permitted to perform Rollovers in the Scheduling Management Tool. Scheduling Department Schedulers and/or Scheduling

Faculty Workload Coordinators should coordinate with their Scheduling Campus Admin to schedule Rollovers for the upcoming term.

How to Perform a Rollover

1. On the home page, go to the left-hand side menu and select "**Rollovers**" to take you to the Rollovers Dashboard page. On the top-right corner of the screen, select the "**PERFORM NEW ROLLOVER**" button.
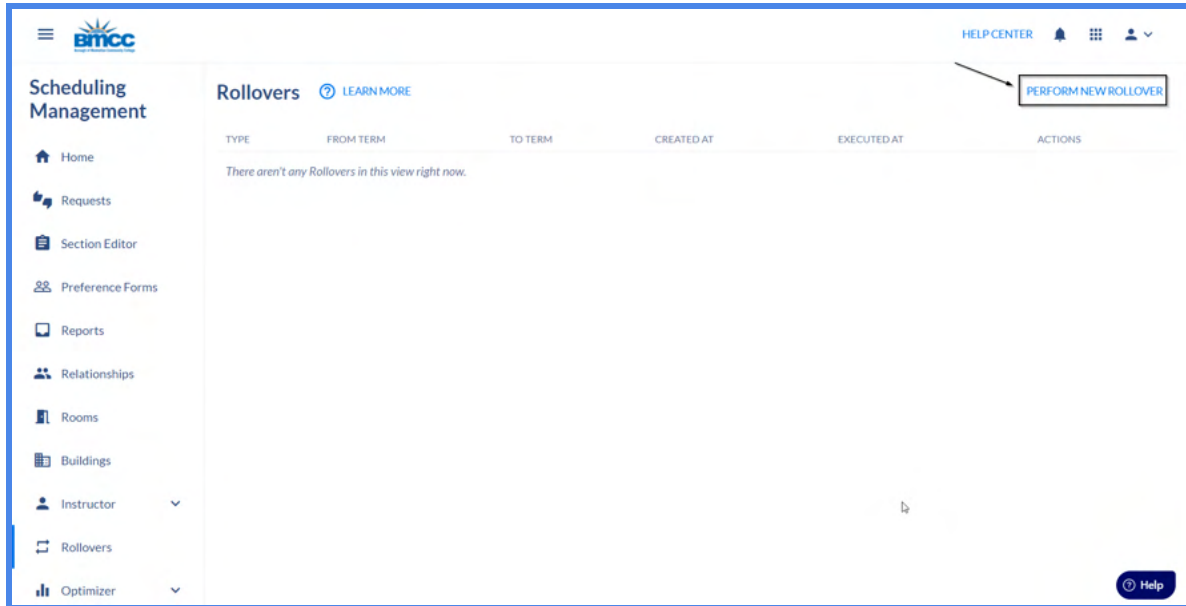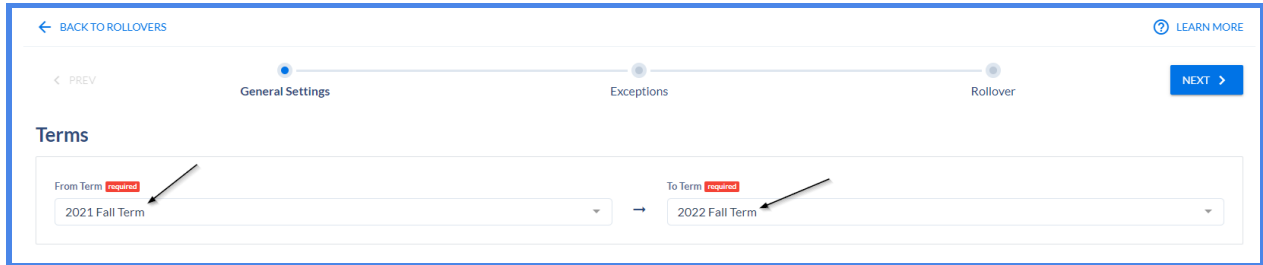

2. Next, a new window will pop-up for you to select the Type of Rollover you want to perform.
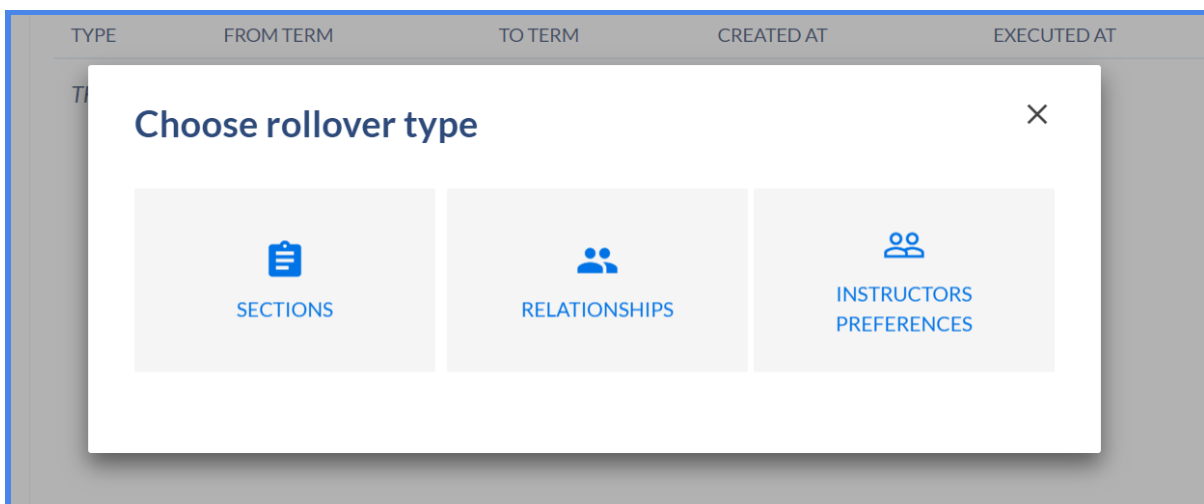
*Note: **INSTRUCTORS PREFERENCES** is not available yet as this is not in use during this phase of Go-Live.*

Sections Rollover

1. From the Sections Rollover page, under "Terms", select the *From Term* field to choose which Term you are copying class sections/courses from. Select *To Term* to assign the term in which *you* would like this to Rollover to happen.

2. Underneath "Sections Fields" you will find all the fields that are pulled from the Section Editor. The user can unselect certain fields to be excluded from the Rollover when it is executed.

Section Fields

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ROLLOVER	FIELD NAME	DATA KEY	HIDDEN
☑	Cancel if Student Enrolled	cncllfStudEnrld	☐
☑	Career	career	☐
☑	Class Association Grading Basis	gradeMode	☐
☑	Class Association Requisites	requirementGroup	☐
☐	Class End Date	endDate	☐
☐	Class Number	callNumber	☐
☑	Class Section	sectionNumber	☐
☐	Class Start Date	startDate	☐
☑	Class Status	status	☐
☑	Class Type	registrationMode	☐

⑦ Help

Note: If a field is selected to be excluded, we will roll it over with an empty value (e.g. If Instructors is Unchecked, the class sections will not have Instructors attached to it for the Term).
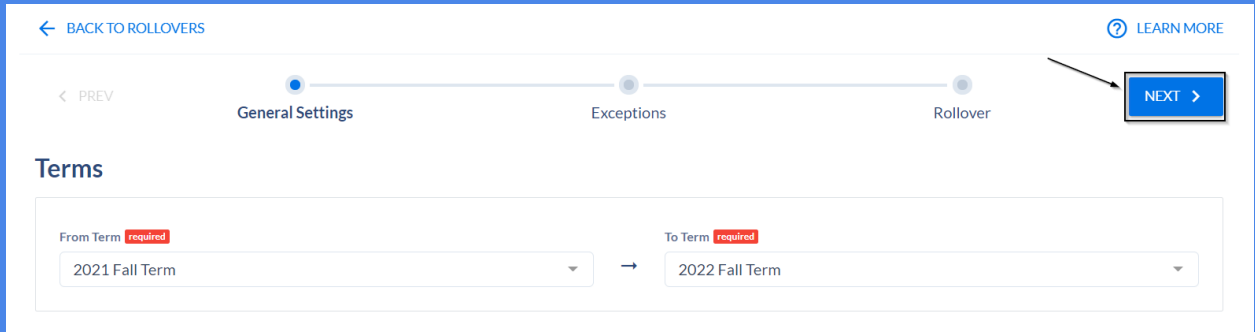
Please note, when including/excluding certain fields within the Section Editor, there are some fields that are dependent on another field. This is known as the parent-child relationship. If the parent field is unchecked, when a rollover is executed, all child fields associated with it will automatically be excluded and values returned in the Section Editor will be empty.
For example, if the "Instructors" field is unchecked (parent field), all associated fields for an instructor such as Employee Record, Assign Type and Workload (child fields) will return as an empty value once rollover is complete.

The following fields are excluded from the Rollover and will be with placed with Empty Values and should be setup manually after the rollover is executed;

- ***Class Start Date*** *(startDate)*

- ***Class End Date*** *(endDate)*

- ***Enrollment Total*** *(enrollment)*

- ***Waitlist Total*** *(waitlist)*

- ***Linked Sections*** *(linkedSections)*

- ***Cross Enrolled Sections*** *(crossEnrolledSections)*

- ***Meeting Start Date*** *(timesStartDate)*

- ***Meeting End Date*** *(timesEndDate)*

- ***Class Number*** *(callNumber)*

- ***Name*** *(relationshipName)*

- ***Type*** *(relationshipType)*

- ***Combined Max Enrollment*** *(relationshipCombinedMaxEnrollment)*

- ***Relationship*** *(relationshipRelationship)*

- ***Notes*** *(relationshipNotes)*

- ***Courses*** *(relationshipCourseIds)*

- ***Sections*** *(relationshipSectionIds)*

- ***Combination Type*** *(relationshipCombinationType)*

- ***Preferred Room Capacity*** *(**relationshipPreferredRoomCapacity**)*

- ***Combined Max Waitlist*** *(relationshipWaitlistCapacity)*

*In addition, you must manually uncheck the "**Event ID**" field as this is generated from CUNYfirst.*

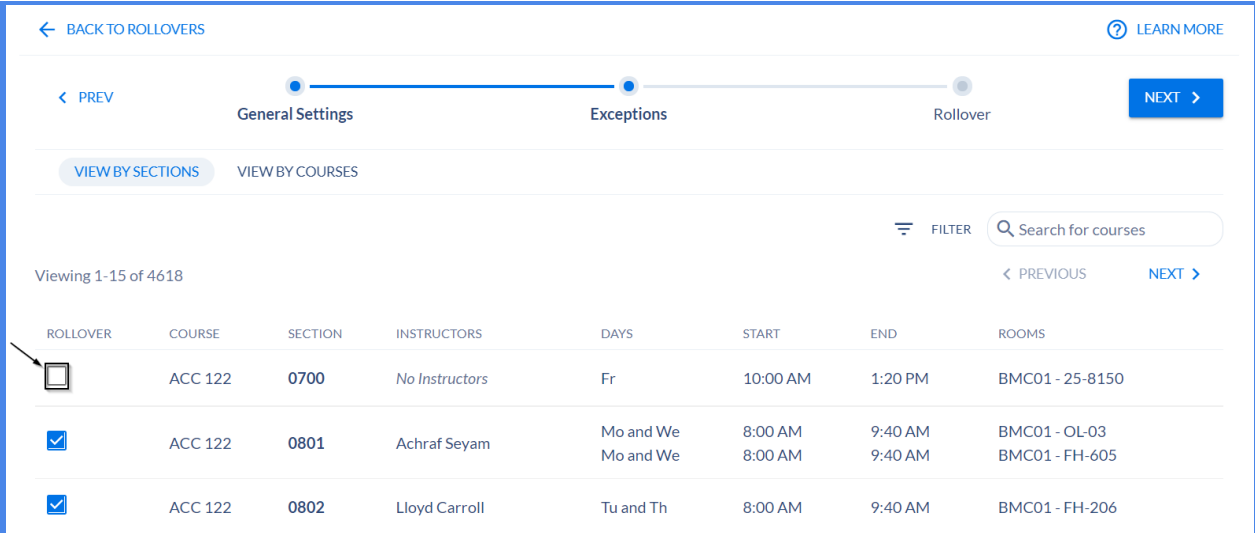3. Once you have selected which fields should be rolled over, select the "**NEXT**" button.

4. Under the Exceptions page, the user is able to exclude specific courses (**VIEW BY COURSES**), with its class sections attached, and/or exclude specific class sections (**VIEW BY SECTIONS**) of a course from the Rollover. You may utilize the **FILTER**, next to the Search engine, to assist you in finding specific courses or class sections you would like to exclude (if applicable).
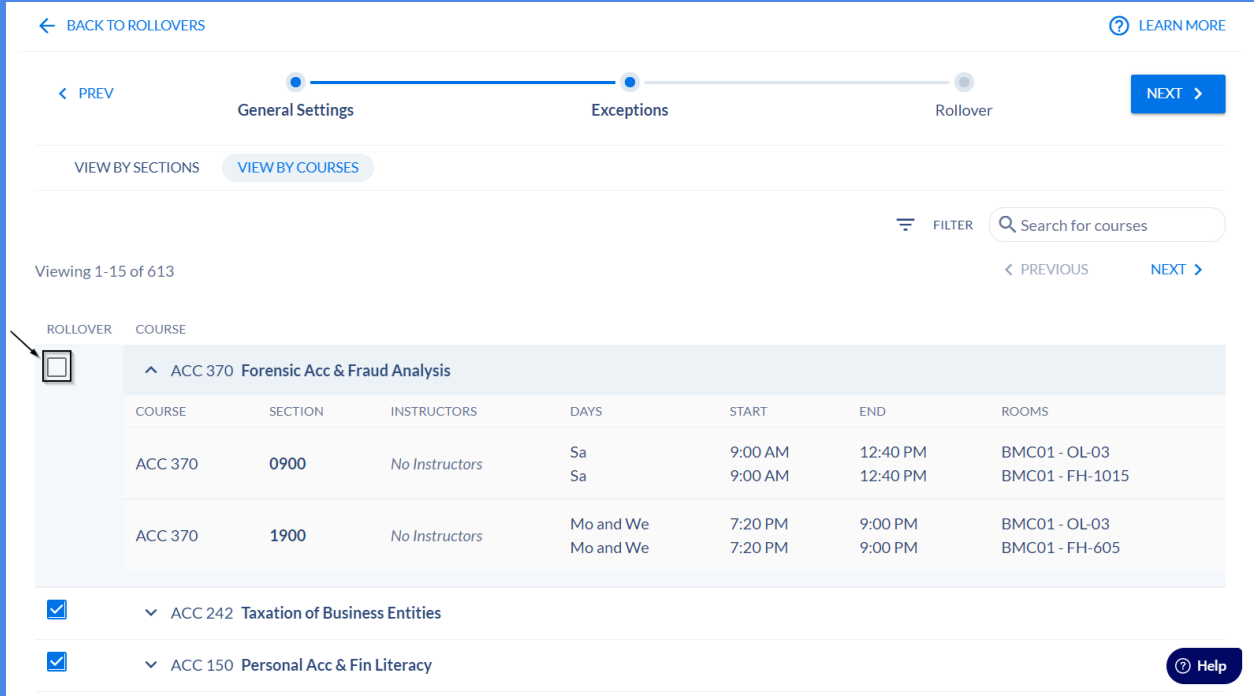
5. Once you have specified which class sections/courses you would like to exclude/include, select the "**NEXT**" button.

6. On this page, prior to executing the Rollover, it will break down the number of class sections and its courses that will rollover from the Previous Term to the Next Term (based on the users selection). Also it will list down which Sections Fields that that system will not Rollover by default and another list that will show which Section Fields were selected by the user that will not rollover.

   Once the user has reviewed, select the "**ROLLOVER**" button and a window will pop-up for the user to select "'**EXECUTE ROLLOVER**."

Build The Perfect Schedule
Click rollover to take the first step in creating your perfect schedule.

⇄ ROLLOVER

There are **4618** Sections and **613** Courses matching search and filter criteria.
We will rollover only these, excluding any selected exceptions.

We will rollover from **2021 Fall Term** to **2022 Fall Term**.

We will not rollover these Section Fields by default:
- **Class Start Date** (startDate)
- **Class End Date** (endDate)
- **Enrollment Total** (enrollment)
- **Waitlist Total** (waitlist)
- **Linked Sections** (linkedSections)
- **Cross Enrolled Sections** (crossEnrolledSections)
- **Meeting Start Date** (timesStartDate)
- **Meeting End Date** (timesEndDate)
- **Class Number** (callNumber)
- **Name** (relationshipName)
- **Type** (relationshipType)
- **Combined Max Enrollment** (relationshipCombinedMaxEnrollment)
- **Relationship** (relationshipRelationship)
- **Notes** (relationshipNotes)
- **Courses** (relationshipCourseIds)
- **Sections** (relationshipSectionIds)
- **Combination Type** (relationshipCombinationType)
- **Preferred Room Capacity** (relationshipPreferredRoomCapacity)
- **Combined Max Waitlist** (relationshipWaitlistCapacity)

We will not rollover these selected Section Fields:
- **Instructors** (professors)
- **Room** (timesRoom)

? Help

Are you sure you want to execute this Rollover?   ✕

CANCEL   EXECUTE ROLLOVER

...will not rollover these Section Fields by default:
ass Start Date (startDate)
ass End Date (endDate)

We will not rollover these selected Section Fields:
- **Instructors** (professors)
- **Room** (timesRoom)

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7. Once the Rollover is executed, an icon will display as loading. Once complete, it will take the user back to the Rollovers Dashboard and a message will appear on the bottom of the page that it was successful. The user will be able to view the rolled over schedule of classes via Section Editor.

← BACK TO ROLLOVERS   ? LEARN MORE

‹ PREV   General Settings   Exceptions   Rollover   NEXT ›

Build The Perfect Schedule
Click rollover to take the first step in creating your perfect schedule.

⟳ EXECUTING...

Note: *The Schedule of Classes that were Rolled over will show in the Schedule of Classes in CUNYfirst after nightly sync in order to generate the Class Numbers. Please consult CUNY OUR to have nightly sync to be turned ON ahead of time, if you are planning to conduct a Rollover of the Class Schedule for the upcoming term.*

Relationships Rollover

1. From the Relationships Rollover page, under "Terms" select the *From Term* field to choose which Term you are copying which class sections/courses from and select *To Term* which class sections/courses you would like this to Rollover to a specific Term.

2. Below "Relationship Fields" you will find all the fields pulled from the Combined Sections Table. The user can unselect certain fields to be excluded from the Rollover when it is executed.

3. Once you have selected which fields should be rolled over, select the "**NEXT**" button.

4. Under the Exceptions page, the user may select which Relationships to include/exclude in the Rollover.

5. Once you have specified the Relationships you would like to exclude/include, select the "**NEXT**" button.

6. On this page, prior to executing the Rollover, it will break down the number Relationships that will rollover from the Previous Term to the Next Term (based on the users selection).

   Once the user has reviewed, select the "**ROLLOVER**" button and a window will pop-up for the user to select "'**EXECUTE ROLLOVER**."

7. Once the Rollover is executed, an icon will display as loading. Once complete, it will take the user back to the Rollovers Dashboard and a message will appear on the bottom of the page that it was successful. The user will be able to view the rolled over Relationships on the Relationships dashboard page.

Relationships

Relationships are used to associate multiple sections with each other.

+ ADD RELATIONSHIP

Viewing 1-50 of 87   ‹ PREVIOUS   NEXT ›

NAME	TYPE	SECTIONS
AFN 129/12	Linked Sections - Same Time Same Day Same Room	AFN129H (Blk Man In Society (Honors)) - 160W AFN129 (Blk Man In Society) - 160W
AFN124	Linked Sections - Same Time Same Day Same Room	AFN124 (African-American History) - 1101 AFN124 (African-American History) - 3001
AFN124	Linked Sections - Same Time Same Day Same Room	AFN124 (African-American History) - 1102 AFN124 (African-American History) - 3002
AFN128	Linked Sections - Same Time Same Day Same Room	AFN128 (Blk Women Amer/Cari) - 111W AFN128H (Blk Women Amer/Cari (Honors)) - 111W

Note: *The Schedule of Classes Rolled over (including the Relationships rollover) will show in the Schedule of Classes in CUNYfirst after nightly sync, in order to generate the Class Numbers. If you are planning to conduct a Rollover of the Class Schedule for the upcoming term, please consult CUNY OUR to have nightly sync turned ON ahead of time for the upcoming term.*

Creating/Adding Relationships (Linked Sections)

In Coursedog, you can share a Relationship between two or more separate class sections from a course within the same Academic Organization or from another Academic Organization as one class offering. When these class sections are linked together, they will share the Same Time, Same Day, Same Room and Same Instructor information.

For example, a course from the Criminal Justice Department (ECO 360) is identical to a course that is offered from the Economics Department (SOC 360). Both courses teach the same subject (White Collar Crime) and are offered every semester, however only a maximum of 40 students is allowed in total. To offer both courses in the Schedule each semester but must be taught as a single class where there is only one instructor, one meeting pattern, and one room, these must share a Relationship (i.e. Linked Sections).

Each class section that belongs to a Relationship will always have different Class Numbers but will always have the same Event ID Numbers generated from CUNYfirst.
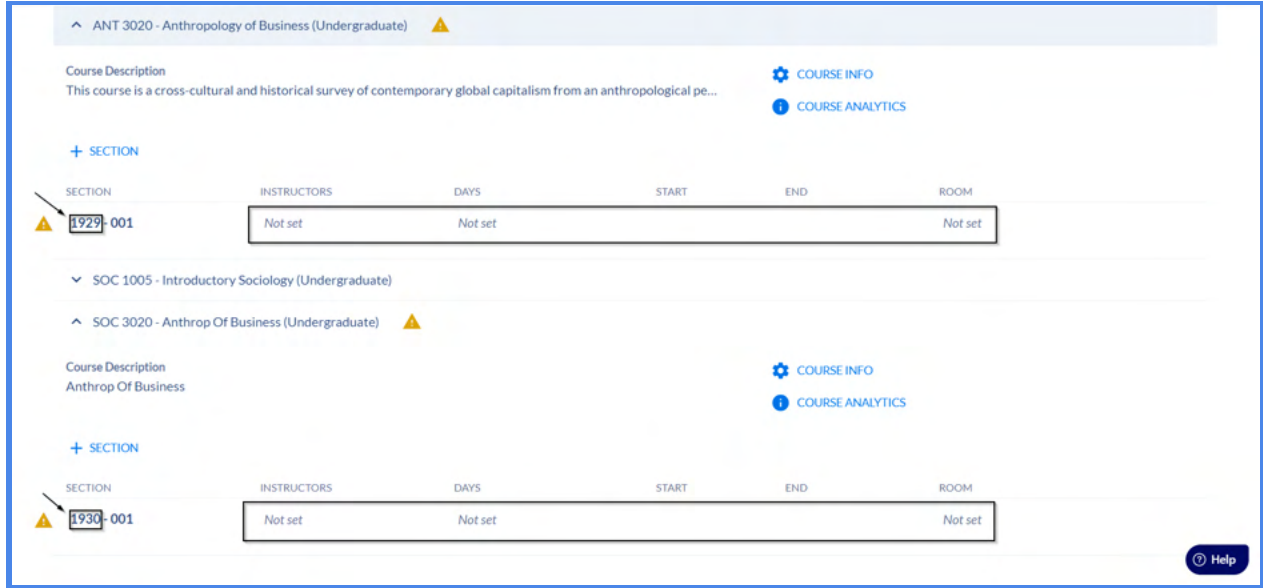
Note: *This is the same as Combined Sections in PeopleSoft.*

Creating a Relationship via Relationship Dashboard

Relationships between courses/sections in Coursedog can be added and managed through the Relationships Dashboard.

1. Create new class sections or use pre-existing class sections that **do not have any** Meeting Pattern (Days and Times), Room(s) and Instructor(s) attached that will belong to the Relationship.

   If Real-Time Integration is On: CUNYfirst will then generate a CLASS NBR for the section which will populate in Coursedog. When real-time integration is enabled you *must* first ensure that CLASS NBRs have been created for the sections to be used in the Relationship.

If Real-Time Integration is Off: When real-time integration is not enabled you do *not* first have to confirm CLASS NBRs have been created. Just validate that the class sections have been created and saved in Coursedog.

*Note: All class sections that will share a Relationship must have the same Enrollment Capacity at the class section level (i.e. **Enrollment Settings** card).*

2. Navigate to the relationships tab on the left hand side menu to access the dashboard.

3. From there, relationships can be created using the **"+ Add Relationships"** button. If you are creating a relationship for class sections that are for another term, you may select the drop down field in the Viewing Term field to select another term.

4. A window will pop up, complete all relevant fields to create the Relationship (see below for each field and its definition). Afterwards, click the "**Save**" button and it will create the relationship between the class sections you have linked.

Field Names:

- *"Name"*: Name of the Relationship
- *"Combined Max enrollment"*: The overall max enrollment for all the class sections you will link (i.e. If SOC 100 and ANT 100 are linked and they have a Combined Max enrollment of 30, the max number of students that can be enrolled to these linked sections is 30).
  - If the Combined Max Enrollment sum is not set, the value will be defined as the sum of the max enrollments of all sections in the relationship.
- *"Combination Type"*: Select *'Within Subject', 'Cross Subject',* or *'Both'*
- *"Combined Max Waitlist"*: The max number of students to be placed on the waitlist for the linked sections once the class is fully enrolled.
- *"Preferred Room Capacity"*: The desired facility with the specific room capacity you want the linked sections to be assigned to.
- *"Notes"*: For Linked Sections only
- *"Courses to add"*: Type in the Course(s) (Subject + Code) you want to link and select it

- **"*Sections to add*"**: Once a Course has been selected, click on the dropdown and select the Class Section number(s) you would like to link
    - When adding sections to the relationship be sure to select the '**+**' button. Otherwise, the relationship will not be built.

Relationship Options:

Same Time, Same Day, And Same Room	This is also known as a Shared Space or taught together relationship. These sections are supposed to be taught at the same time and day, and in the same room. With this relationship all Double Booked Instructor and Double Booked Room conflicts will be ignored.
No Relationship	If a user wants to combine two sections that have different meeting patterns, they must set the "Relationship Type" to "No Relationship," which is the same as setting the "Skip Meeting Pattern Edit Flag" to "Y" in Peoplesoft. If this is not done, the relationship will not be able to be created in Peoplesoft.

Note: See [Section Editor Field Mappings](#) for a mapping of Coursedog Relationship fields to the CUNYfirst Combined Sections table to aid in completion.

If Real-Time Integration is On: The Integration Status will show the user that if the Relationship was synced with CUNYfirst.

If Real-Time Integration is Off: The Integration Status will let the user know that the Relationship has not synced with CUNYfirst. However, confirm that the Relationship was saved.
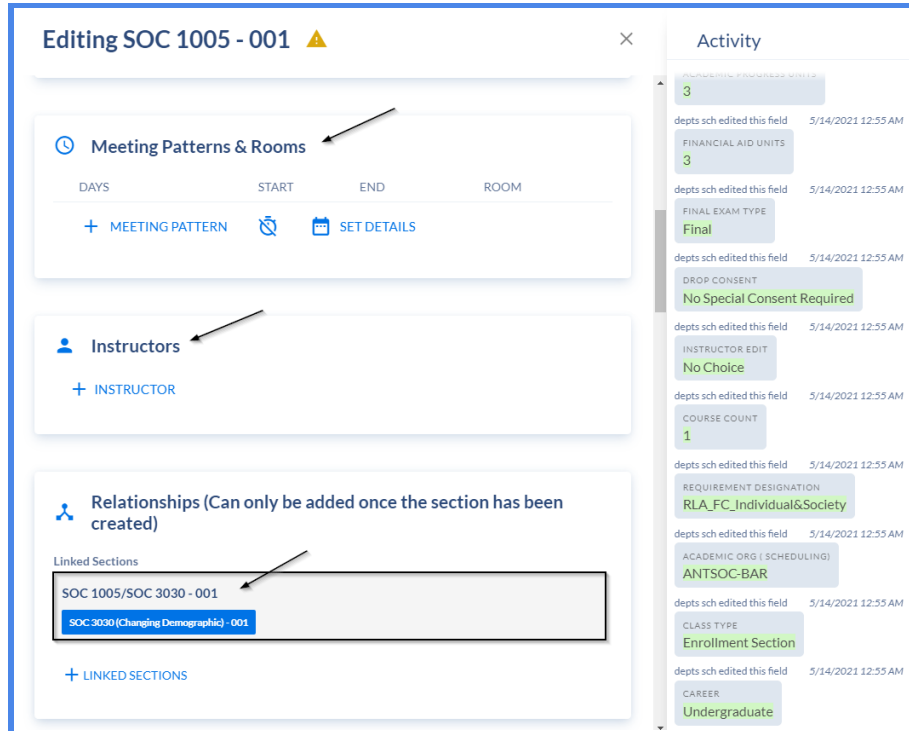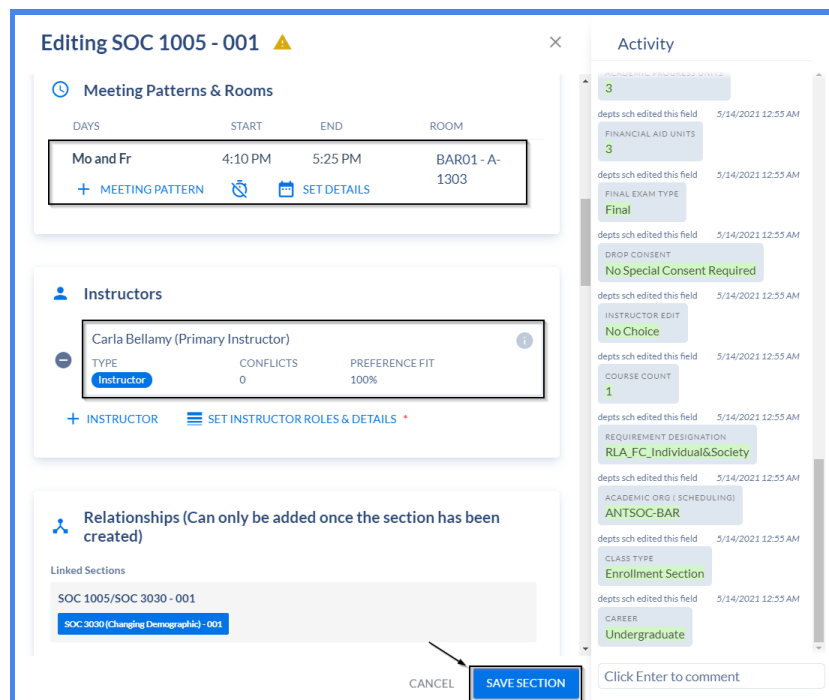
5. After creating the Relationship through the Relationships Dashboard, navigate to **Section Editor** and open one of the class sections that was created or pre-existing that has the Relationship attached. From there, you are able to view the Relationship attached to the class section(s).

6. From here, the user may go to the "***Meeting Patterns & Rooms***" card to add in Days/Times and Room and go to the *"Instructors"* card to add the Instructor(s) who will be teaching both of the linked sections. Afterwards click on the "**SAVE SECTION**" button.

7. A window will pop up and tell the users that there is a Relationship Conflict. This is the normal behavior as you are linking this section to another section that does not have the same Times/Days and/or Room attached. Click the "**SAVE SECTION**" button to continue.

If Real-Time Integration is On: The class section will sync successfully with CUNYfirst and it will have the Days/Times (including Room) and Instructor carry over to its linked section and the rule violation will disappear. This also includes the Event ID number generated via CUNYfirst.
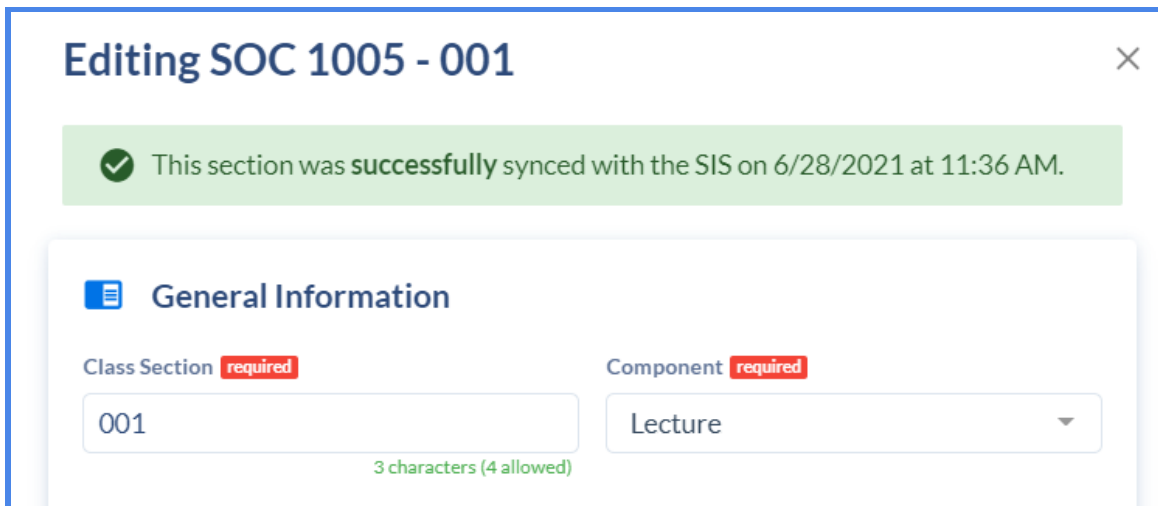
| 67707 - 001 | Carla Bellamy | Mo and We | 10:00 AM | 1:00 PM | BAR01 - A-1000H |

SOC 3020 - Anthrop Of Business (Undergraduate)

Course Description
Anthrop Of Business

⚙ COURSE INFO
ⓘ COURSE ANALYTICS

➕ SECTION

SECTION	INSTRUCTORS	DAYS	START	END	ROOM
67705 - 001	Carla Bellamy	Mo and We	10:00 AM	1:00 PM	BAR01 - A-1000H

If Real-Time Integration is Off: Confirm that the class section was saved and it has the Days/Time and Instructor added. If nightly sync is turned On for the Term,, the Days/Times (including Rooms) and Instructor will carry over to its linked section, the rule violation will disappear and this will generate the Class Number and the Event ID Number via CUNYfirst.

SOC 1005 - Introductory Sociology (Undergraduate) ⚠

Course Description
This course is a survey of sociological perspectives-particularly social interactionism, functionalism, and conflict t...

⚙ COURSE INFO
ⓘ COURSE ANALYTICS

➕ SECTION

SECTION	INSTRUCTORS	DAYS	START	END	ROOM
⚠ 001	Carla Bellamy	Mo and Fr	4:10 PM	5:25 PM	BAR01 - A-1303

SOC 3030 - Changing Demographic (Undergraduate) ⚠

Course Description
This course focuses on the meaning, causes, and impacts of demographic transforms on socially and spatially defi...

⚙ COURSE INFO
ⓘ COURSE ANALYTICS

➕ SECTION

SECTION	INSTRUCTORS	DAYS	START	END	ROOM
⚠ 001	Not set	Not set			Not set
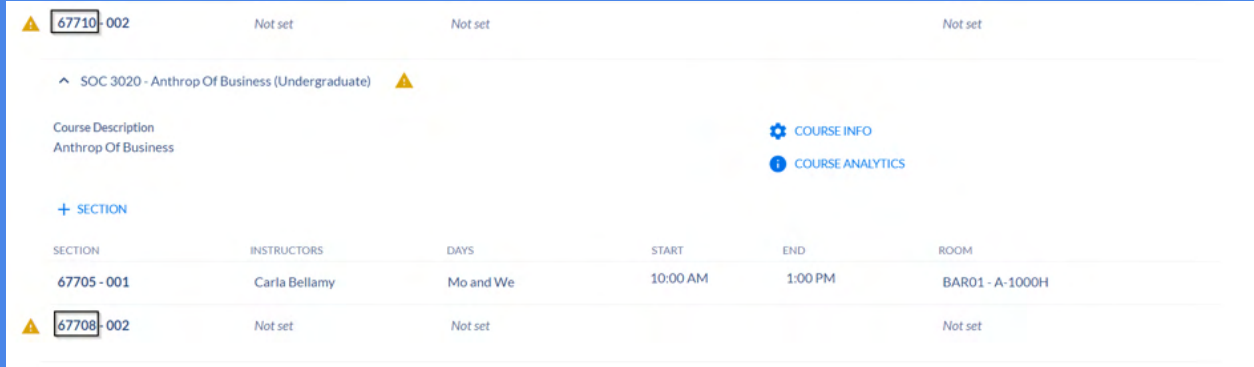
⑦ Help

Creating a Relationship via Section Editor

Relationships can be created between two or more class sections through the Section Editor.

1. Create new class sections or use pre-existing class sections that **do not have any** Meeting Pattern (Days and Times), Room(s) and Instructor(s) attached that will belong to the Relationship.

   If Real-Time Integration is On: CUNYfirst will then generate a CLASS NBR for the section which will populate in Coursedog. When real-time integration is enabled you *must* first ensure that CLASS NBRs have been created for the sections to be used in the Relationship.

If Real-Time Integration is Off: When real-time integration is not enabled you do *not* first have to confirm CLASS NBRs have been created. Just validate that the class sections have been created and saved in Coursedog.

*Note: All class sections that will share a Relationship must have the same Enrollment Capacity at the class section level (i.e. **Enrollment Settings** card).*

2. After you have created the class sections, open one of the class sections that was created or pre-existing class sections and go to the "**Relationships**" card. From there, click on the "**+ LINKED SECTIONS**" button.

3. A window will pop up, complete all relevant fields to create the Relationship (see below for each field and its definition). Afterwards, click the "**Save**" button and it will create the relationship between the class sections you have linked.

Field Names:

- *"Name"*: Name of the Relationship
- *"Combined Max enrollment"*: The overall max enrollment for all the class sections you will link (i.e. If SOC 100 and ANT 100 are linked and they have a Combined Max enrollment of 30, the max number of students that can be enrolled to these linked sections is 30).
  - If the Combined Max Enrollment sum is not set, the value will be defined as the sum of the max enrollments of all sections in the relationship.
- *"Combination Type"*: Select *'Within Subject', 'Cross Subject',* or *'Both'*
- *"Combined Max Waitlist"*: The max number of students to be placed on the waitlist for the linked sections once the class is fully enrolled.
- *"Preferred Room Capacity"*: The desired facility with the specific room capacity you want the linked sections to be assigned to.
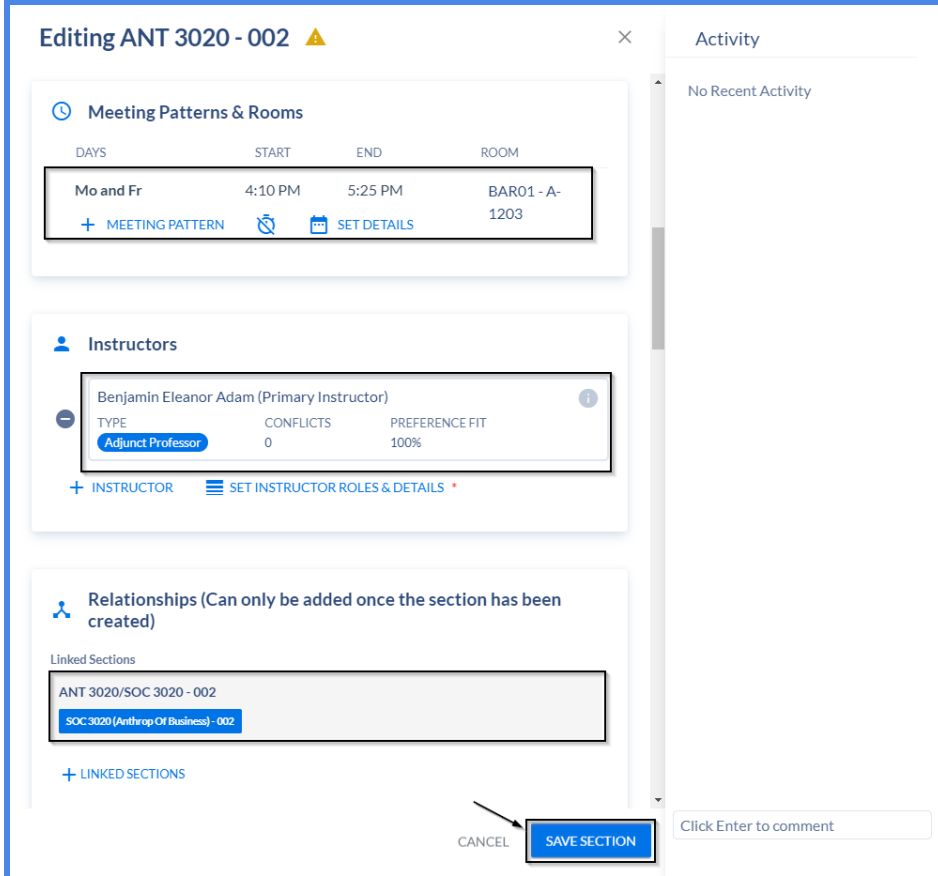- *"Notes"*: For Linked Sections only
- *"Courses to add"*: Type in the Course(s) (Subject + Code) you want to link and select it
- *"Sections to add"*: Once a Course has been selected, click on the dropdown and select the Class Section number(s) you would like to link
  - When adding sections to the relationship be sure to select the '**+**' button. Otherwise, the relationship will not be built.

Relationship Options:

Same Time, Same Day, And Same Room	This is also known as a Shared Space or taught together relationship. These sections are supposed to be taught at the same time and day, and in the same room. With this relationship all Double Booked Instructor and Double Booked Room conflicts will be ignored.
No Relationship	If a user wants to combine two sections that have different meeting patterns, they must set the "Relationship Type" to "No Relationship," which is the same as setting the "Skip Meeting Pattern Edit Flag" to "Y" in Peoplesoft. If this is not done, the relationship will not be able to be created in Peoplesoft.

Note: See *Section Editor Field Mappings* for a mapping of Coursedog Relationship fields to the CUNYfirst Combined Sections table to aid in completion.

4. Once the Relationship has been created between the class sections, the user may now go to the "***Meeting Patterns & Rooms***" card to add in Days/Times and Room and go to the *"**Instructors**"* card to add the Instructor(s) who will be teaching both of the linked sections. Afterwards click on the "**SAVE SECTION**" button.

5. A window will pop up and tell the users that there is a Relationship Conflict. This is the normal behavior as you are linking this section to another section that does not have the same Times/Days and/or Room attached. Click the "**SAVE SECTION**" button to continue.

Section Conflicts ✕

⚠ Relationship Conflict (1)
This section is violating the **Same Time Same Day Same Room relationship** it has with SOC 3020 - 002.

SAVE SECTION

If Real-Time Integration is On: The Integration Status will show the user that if the Class Section was synced and as well the Relationship was synced with CUNYfirst and the rule violation will disappear. The Instructors, Days/Times (including Room) will carry over to the other class section. This also includes the Event ID number generated via CUNYfirst.

Editing ANT 3020 - 002 ✕

✓ This section was **successfully** synced with the SIS on 6/28/2021 at 12:14 PM.

📄 General Information

Class Section required

002

3 characters (4 allowed)

Component required

Lecture ▾

Edit Relationship ✕

Relationship Information

✓ This relationship was **successfully** synced with the SIS on 6/28/2021 at 12:14 PM.

Name

ANT 3020/SOC 3020 - 002

Type

Linked Sections

Combined Max Enrollment ❓

35

Relationship Courses

Course to add

Type to search for courses ▾

SOC 3020 (Anthrop Of Business) - 002   🗑 ⓘ
ANT 3020 (Anthropology of Business) - 002   ⓘ

67709 - 001	Not set	Not set			Not set	
67710 - 002	Benjamin Eleanor Adam	Mo and Fr	4:10 PM	5:25 PM	BAR01 - A-1203	

⌃ SOC 3020 - Anthrop Of Business (Undergraduate)

Course Description
Anthrop Of Business

⚙ COURSE INFO
ℹ COURSE ANALYTICS

+ SECTION

SECTION	INSTRUCTORS	DAYS	START	END	ROOM
67705 - 001	Carla Bellamy	Mo and We	10:00 AM	1:00 PM	BAR01 - A-1000H
67708 - 002	Benjamin Eleanor Adam	Mo and Fr	4:10 PM	5:25 PM	BAR01 - A-1203

If Real-Time Integration is Off: Confirm that the class section was saved and it has the Days/Time (including Rooms) and Instructor added. The Rule Violation of '**Same Time Same Day Same Room relationship**' will still appear, however, if nightly sync is turned On for the Term, the Class Number and Event ID number will generate for the class section and the Days/Times and Instructor will carry over to its linked section. The rule violation will also disappear.

Editing SOC 1005 - 002 ⚠   ✕

ℹ This section has not yet been synced with the SIS.

⚠ This section is violating the **Same Time Same Day Same Room relationship** it has with SOC 3030 - 002.

📘 General Information

Class Section [required]

002

3 characters (4 allowed)

Component [required]

Lecture ▼

Edit Relationship ✕

Relationship Information

ℹ This relationship has not yet been synced with the SIS.

Name

SOC 1005/SOC 3030 - 002

Type

Linked Sections

Combined Max Enrollment ❓

35

Relationship Courses

Course to add

Type to search for courses ▼
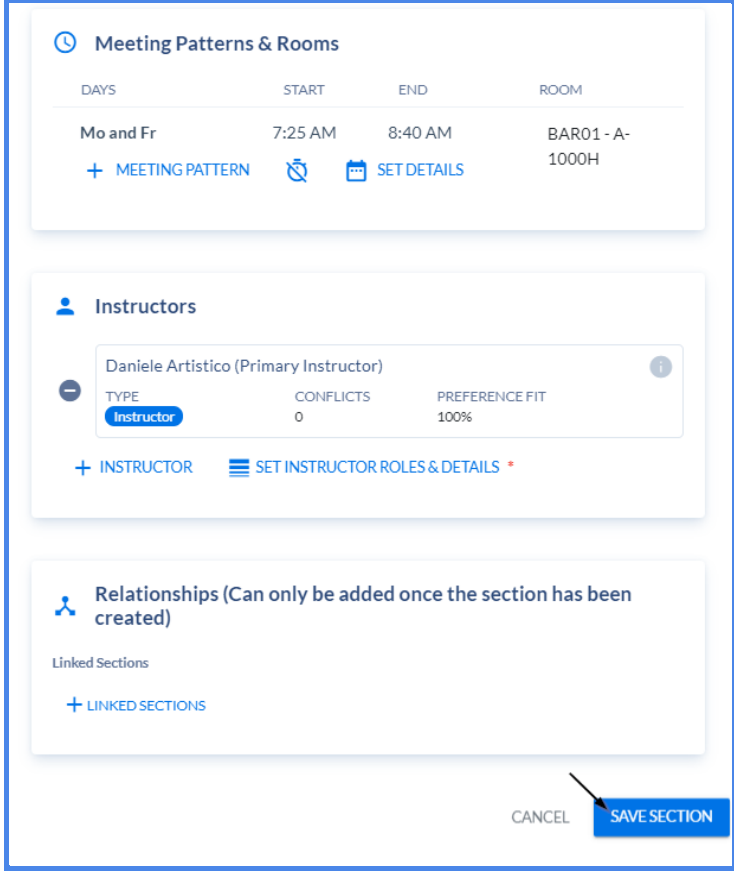
| SOC 3030 (Changing Demographic) - 002 | 🗑 ℹ |
| SOC 1005 (Introductory Sociology) - 002 | ℹ |

SECTION	INSTRUCTORS	DAYS	START	END	ROOM
1929 - 001	Christopher Baum	Tu and Th	7:30 PM	8:45 PM	BAR01 - A-1000H
1931 - 002	Benjamin Eleanor Adam	Mo and Fr	4:10 PM	5:25 PM	BAR01 - A-1203

∨ COM 1013 - Public Speaking (Undergraduate) ⚠ ⛔

∨ ENG 100 - Basic Writing I (Undergraduate) ⚠

∨ HIS 1000 - Themes in American History (Undergraduate)

∨ HIS 2022 - Europe In 18th Cent (Undergraduate) ⚠

∨ SOC 1005 - Introductory Sociology (Undergraduate)

∧ SOC 3020 - Anthrop Of Business (Undergraduate)

Course Description
Anthrop Of Business

⚙ COURSE INFO

ℹ COURSE ANALYTICS

➕ SECTION

SECTION	INSTRUCTORS	DAYS	START	END	ROOM
1930 - 001	Not set	Tu and Th	7:30 PM	8:45 PM	BAR01 - A-1000H
1932 - 002	Not set	Mo and Fr	4:10 PM	5:25 PM	BAR01 - A-1203

❓ Help

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Deleting a Linked Section Relationship

1. Open an existing class section and go to the Relationship card and select the Relationship that is attached to the section. Once you land on the Edit Relationship window, click on the red delete button within the relationship. Afterwards click on the "**SAVE**" button.

2. Once you click on Save, click on the "**SAVE SECTION**" button.

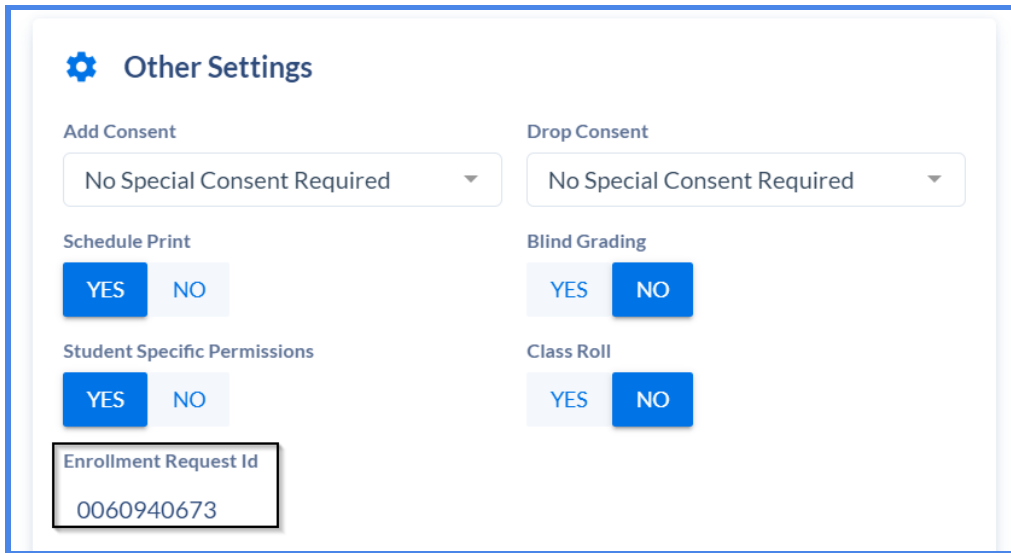**Note:** *If you delete a linked section, the relationship will be deleted for the section and the sibling automatically, however the meeting patterns will only drop for the section where the relationship was deleted. For example, if BIO1300 - 001 and BIO2200 - 001 are linked, and you delete the relationship from the BIO1300 - 001 in the Section Editor - it will automatically be deleted for BIO2200 - 001.*

The meeting pattern will be removed from BIO1300 - 001 but will remain intact for BIO2200 - 001. The user must manually remove the meeting pattern/instructor(s) for that section.

Class Roll

Class Roll is used for when a class section is scheduled and enrollment exists, certain fields that are changed at the Class Associations Component such as Credits (Minimum Units, Academic Progress Units, Financial Aid Units, Billing Factor), Course Count, Tuition Group, Grading Basis and Requirement Designation, must be updated and reflected for all of the students enrolled for that class section.

Once the Class Roll is set to enabled and it syncs to CUNYfirst real-time, behind the scenes CUNYfirst creates an enrollment maintenance transaction through a COBOL process and in return the class section inside the Section Editor will display the Enrollment Request ID related to the transaction made.

Note: The Enrollment Request ID number will be displayed for use on the Block Enrollment page in CUNYfirst (Please consult your Registrar on this).

Performing a Class Roll

1. Open a Class Section inside the Section Editor that have students enrolled and edit any of the following fields depending on the transaction being made (e.g. Changed Financial Aid Credits from 3 to 4.

Note: *When editing any of the aforementioned fields, a warning will appear to let the user know that "**Class Roll Button Should Be YES**." Or else, the user cannot save the class section to perform the Class Roll.*

*If the Class Roll button was selected to YES, without editing any of the aforementioned fields, a similar warning will appear to state that "**Class Roll Button Should Not Be Yes.**" Class Roll cannot be performed until this is resolved.*

2. Scroll down to the "Other Settings" card, go to the *Class Roll* field and select YES. The warning will disappear and the user can click on the "**SAVE SECTION**" button.
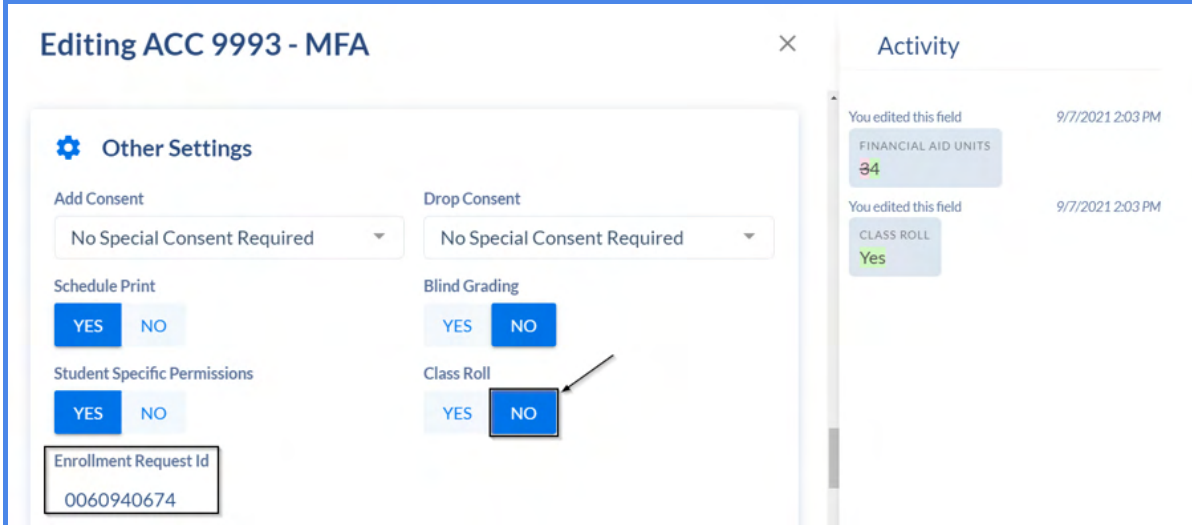
3. Once the class section saves and syncs to CUNYfirst in real-time, the Enrollment Request ID field will populate and the Class Roll button will be set back to NO. The user will be able to use this for the Block Enrollment page in CUNYfirst, to update the enrollment records of the students in the Class Section.
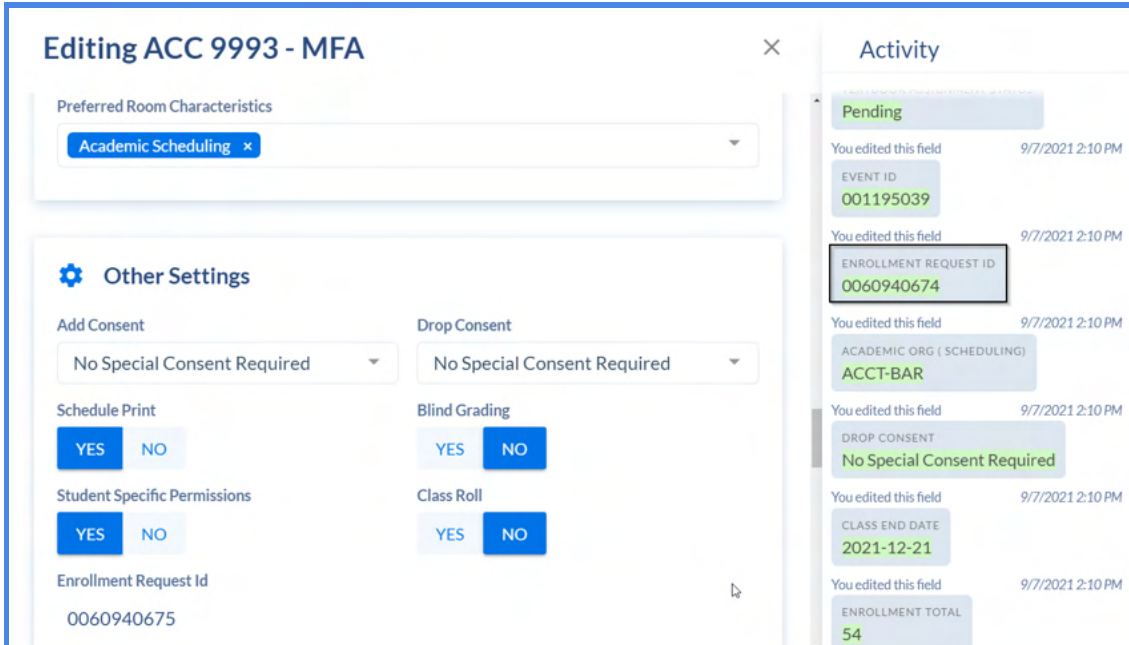
Note: If the user performs the Class Roll multiple times for a particular class section, the Enrollment Request ID field will display the latest transaction. The historical Enrollment Request IDs can be viewed in the Activity Log and/or in the Sections History Report via Reports.

Cancelling Class Sections

1. Open a class section inside the Section Editor and head over to the General Information Card. Click on the Class Status field and select *Cancelled Class Section.*

Note: *If Enrollment exists for the class section, a warning will appear to remind the user that they cannot successfully cancel the class section unless the "Cancel if Student Enroll" must be set to YES.*

Scroll down to the "Enrollment Settings" card and select YES for "Cancel if Student Enrolled" field. Afterwards, the warning will disappear.
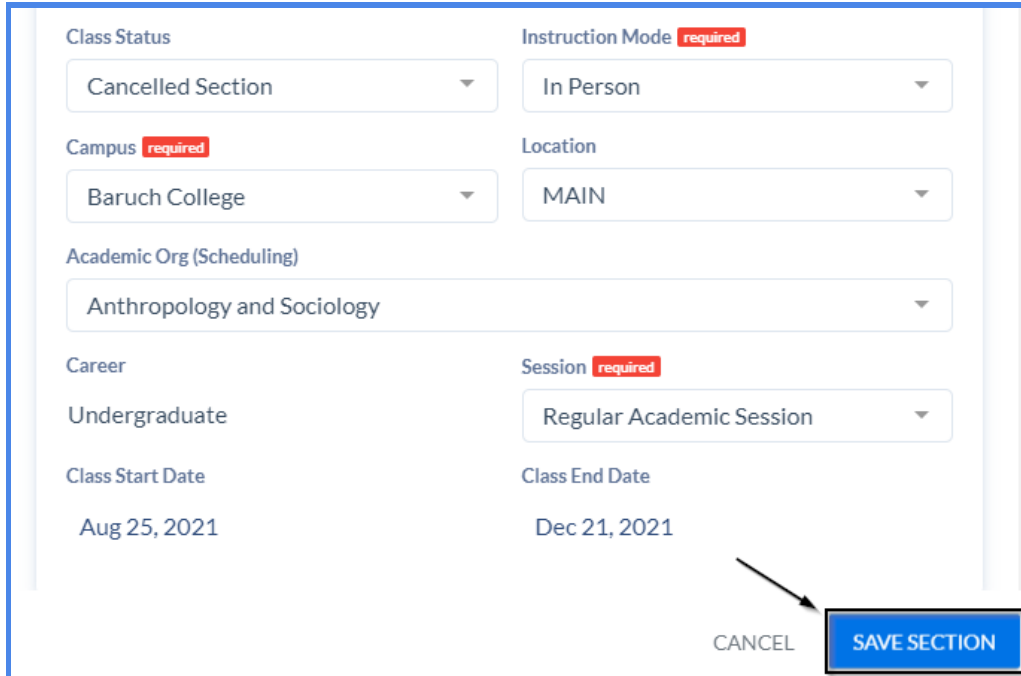
2. Select the '**SAVE SECTION**' button and let it sync to CUNYfirst, if real-time integration is turned ON.

3. Once this syncs successfully, the status will change to *Cancelled Section* and the meeting pattern/instructor (including Enrollment - if it exists) will be dropped in CUNYfirst.

Note: The meeting pattern/instructor (including Enrollment Total) will still be in Coursedog but will be wiped out after the nightly sync.

Reviewing and Finalizing a Department's Schedule

Reviewing Data in the Section Editor

1. To review data entered by a department scheduler, navigate to the home page of the scheduling platform and click on the department you wish to review:

Departmental Status (2021 Fall Term)						
NAME	SCHEDULERS	COURSES	SECTIONS	CONFLICTS	VALIDATION	SUBMISSION
Accountancy	No Schedulers	24	111	79		In Progress
Anthropology and Sociology	No Schedulers	31	76	45		In Progress
Black and Latino Studies	No Schedulers	18	38	30		In Progress

2. This will display a view of all courses in the department which can be expanded to show all scheduled sections:

2021 Fall Term Anthropology and Sociology Department   SECTIONS   INSTRUCTORS

Sections By Course + COURSE   VALIDATE SCHEDULE   = FILTER   ▤ CHANGE VIEW

Viewing 1-25 of 31

⌄ ANT 1001 - Intro to Cultural Anthropology (Undergraduate) ⚠

︿ ANT 1001H - Honors-Intro to Cul Anthro (Undergraduate)

Course Description
Cultural anthropology draws on the humanities, social sciences, and naturalsciences to explore human variation i...

⚙ COURSE INFO
ⓘ COURSE ANALYTICS

+ SECTION

SECTION	INSTRUCTORS	DAYS	START	END	ROOM
28140 - FRH	*Not set*	*Not set*			*Not set*

Your review should be focused on validating that the section data was entered accurately, as all conflicts should have been resolved prior to schedule submission.

Note: *To view an overview of field mappings between Coursedog and Peoplesoft please see* [*here*](#)*.*

Call-out: If a user changes the 'Class Section Field' value the display code in the row for the section, LMS Extract Group ID, and the Event ID field, will not update until data is refreshed and re-synced during the nightly merge.

Call-out: The Class Association Grading Basis field is for the Graded Component, and applies to all components.

Call-out: Faculty members may be assigned to the same section twice when needed so that they may be assigned two different EMPLRCD#s.

3. To view all fields for each section, hover over the section and click the "**Open section editor**" button:
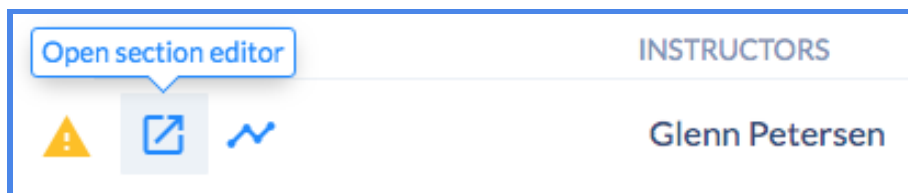
4. This will open a modal with all of the section's information. You can change the section data at any time but doing so may result in conflicts.

5. When you click "**SAVE SECTION**" after making edits, any conflicts that have been generated will appear :

Section Conflicts   ✕

⚠ Double Booked Room (1)
Room **BAR01 - B-9-175** is **double booked** with **ENG2800 Section HTRB.**

⚠ Room Capacity Lower Than Enrollment Capacity (1)
BAR01 - B-9-175's **capacity** is lower than this section's max enrollment capacity.

SAVE SECTION
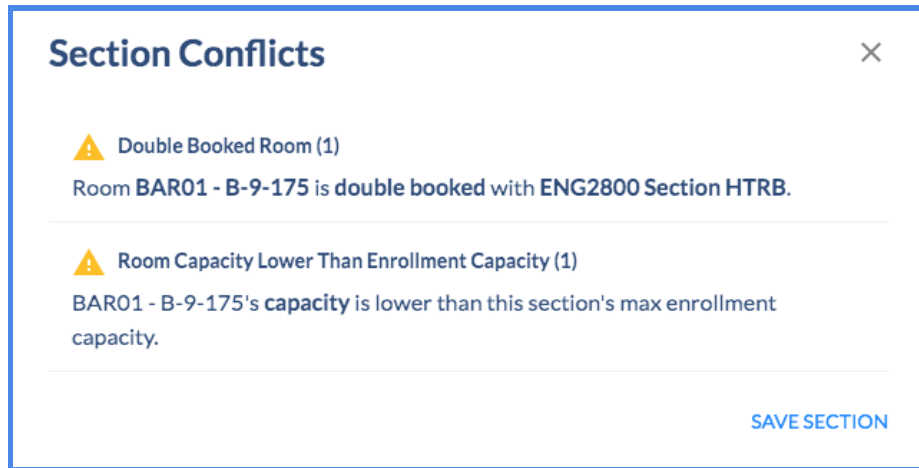
6. To see all conflicts that exist in the selected department, hit the "**VALIDATE SCHEDULE**" button at the top of the screen:

2021 Fall Term Anthropology and Sociology Department

Sections By Course ⊕ COURSE   VALIDATE SCHEDULE

Viewing 1-25 of 31
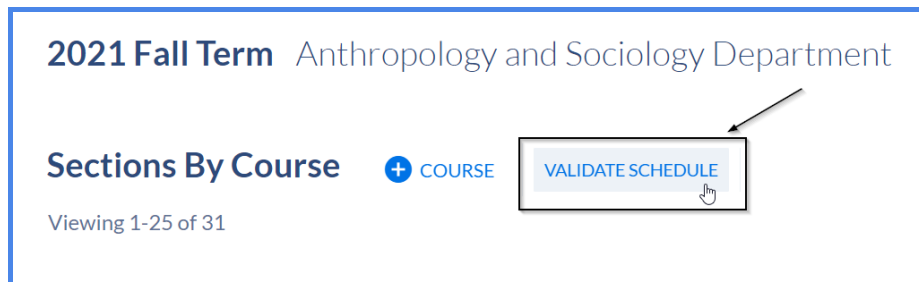
This will present a view of all rule violations in the system that affects the class schedule. These violations must be resolved before you submit your schedule.

1) **Section Rules** are conflicts that violate hard rules in the system such as "Double Booked Room," "Asynchronous Online Room Conflict," "Days with No Times Violation" etc…

Review Schedule Conflicts

As of 09/10/2021 6:34 PM

SECTION RULES | MEETING PATTERN RULES | BOTTLENECKS | PREFERENCES

⚠ **Asynchronous Online Room Conflict** 7

CONFLICT	COURSE CODE	SECTION NUMBER
This section is violating **Asynchronous Online Room Conflict:** This Asynchronous Online Section Must Assign An Online Facility	ANT 1001	NETC

2) **Meeting Pattern Rules** are violated when your schedule is not distributed enough according to the guidelines set up by system administrators. In order to resolve these conflicts you may have to change time assignments for various sections:

Review Schedule Conflicts

As of 09/10/2021 6:40 PM

SECTION RULES | MEETING PATTERN RULES | BOTTLENECKS | PREFERENCES

⚠ **Meeting Pattern Conflicts**

RULES	RATIO	CONTAINED
✓ Meeting Pattern Rule 1 A maximum of % of sections can be scheduled within the following time ranges: Mo from 8:00 AM to 10:00 AM	0/ 0	0%

3) **Bottlenecks** shows you a list of all class sections that you are not able to schedule facilities because there are no rooms available to book (e.g. 4 of English Class Sections have the same time/days but only 3 rooms available left to accommodate them).

4) **Preferences** shows you a list of all section & instructor preferences that are being violated.

Note: *Meeting Pattern Rules and Instructor preferences are not available for this go-live, and thus there should be no instructor preference violations in the system.*

Activity Log

The Section Editor provides an Activity Log that audits any changes made to existing class sections and updated in real-time. (Format shows MM/DD/YYYY and HH:MM AM/PM)

Note: If multiple users are looking at the same activity log they won't see changes until they refresh in the case where a different user initiates a change.
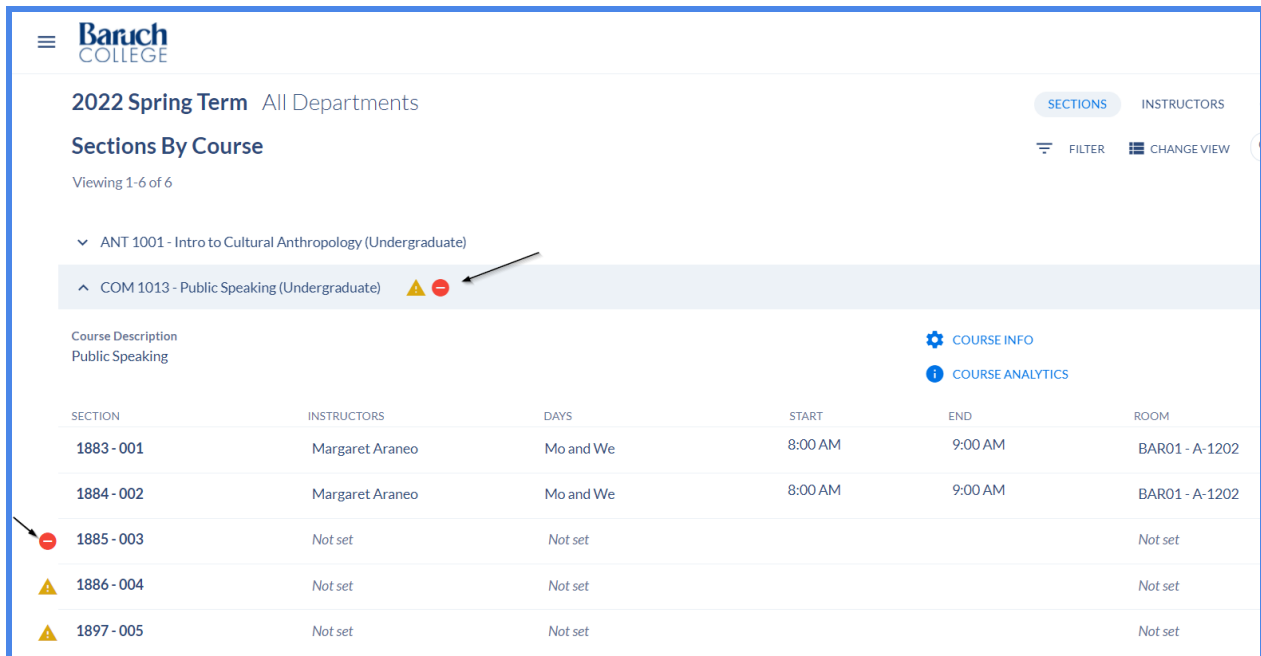
For a holistic view of section version history for all sections navigate to the 'Reports' from the home page, select 'Export' on the left-hand side of the screen and find 'Sections History Report' in the list and select 'Download' button for a CSV file to show. (For more information on exporting Reports, see the 'Reports' section of this guide.

Inline Integration Errors

Sections displayed in the Section Editor will show a "red" error icon if that section has experienced an integration error during the last merge:

Note: If a section has both a conflict and an integration error, the section row will only display the icon for the integration error (as there is only space for 1 icon).

This icon is only visible to users who have the 'View Section Integration Status' permission (i.e. Scheduling Campus Admin role).

*To view a list of all class sections that have Integration Errors, go to the Reports section of the scheduling platform and go to the **Integration Errors Report** (See 'Integration Errors Report' section of this guide).*

Viewing the Calendar in the Section Editor

The calendar view is helpful when reviewing your sections and their start/end times relative to one another. To access, go to the section editor tab on the left-hand side menu, and select the "**Calendar**" tab on the upper right side in between the "**Instructors**" and "**Departments**" tabs:
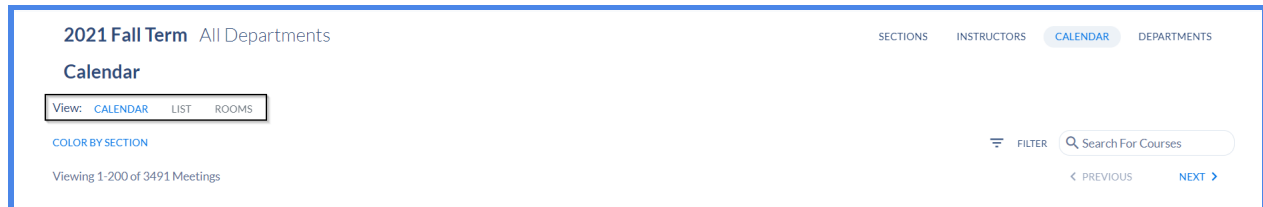
In the top left, you'll see there are a collection of different views through which you can access the calendar;

Calendar View

Calendar View is a standard calendar-style visualization of all sections.Under this view, class sections are viewed by distinct colors depending on the selection;

- "**COLOR BY DAY**" is defaulted and this view will show you all class sections that are scheduled for the term by assigning each day a distinct color (e.g. Class Sections that are scheduled on Monday will be colored Dark Purple as opposed to Class Sections that are scheduled on Thursday will be colored Green).

64
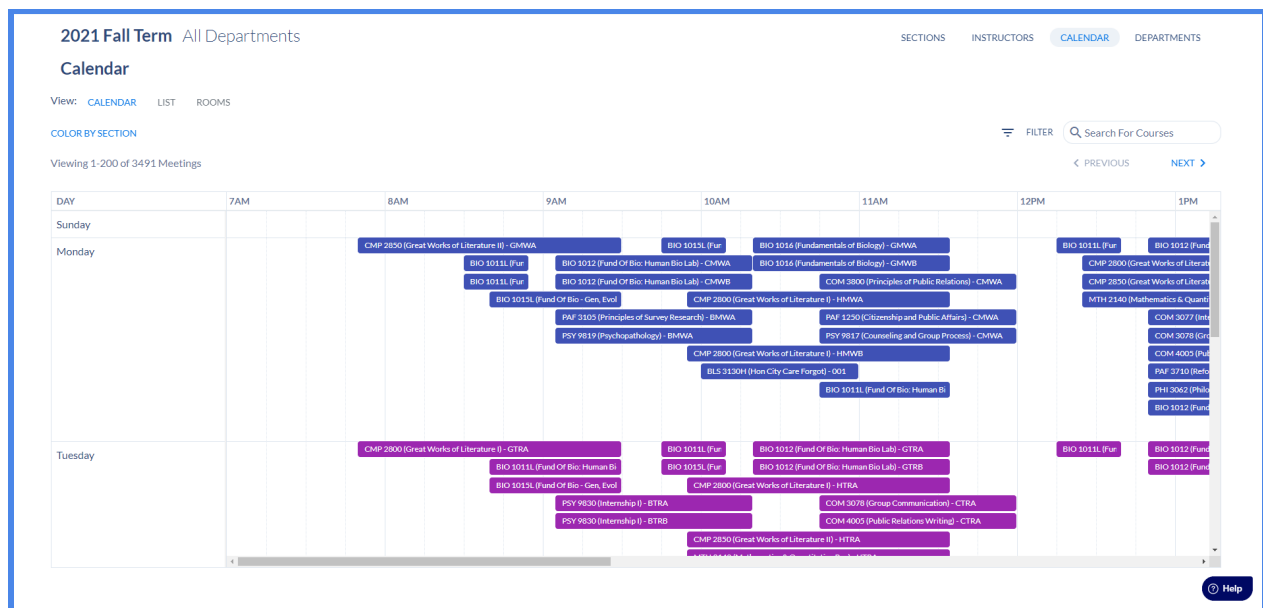
- **"COLOR BY SECTION"** is another view that will show you all class sections that are scheduled for the term by assigning each class section a distinct color code.(e.g. CMP 2850 - GMWB meets on Mondays and Wednesdays from 7:50 a.m. to 9:30 a.m., this class section will be color coded as Teal and it will be depicted on the Calendar on Mondays and Wednesdays).
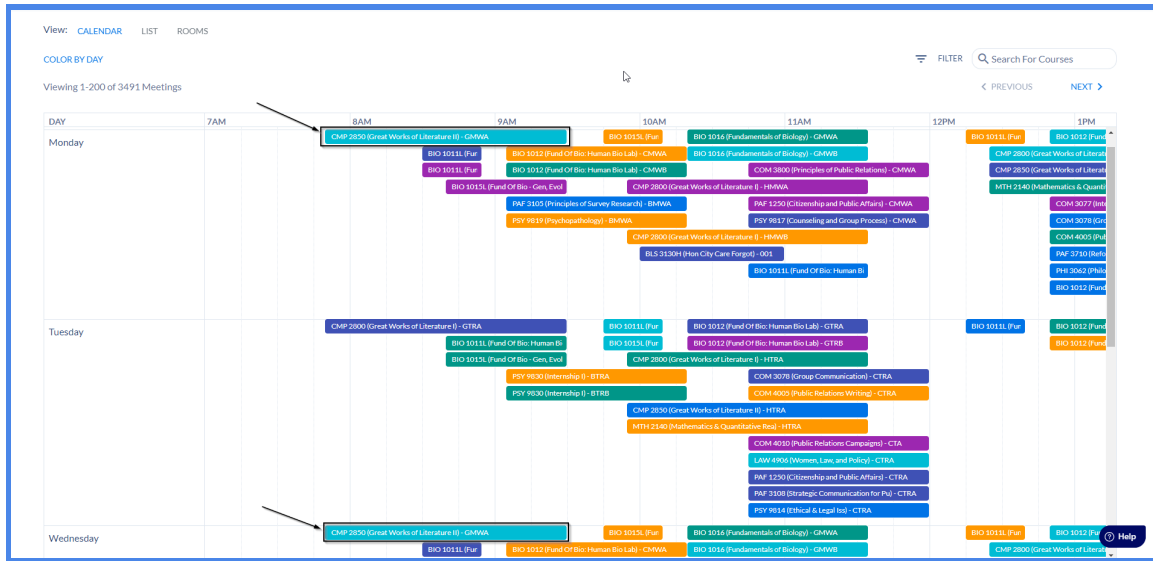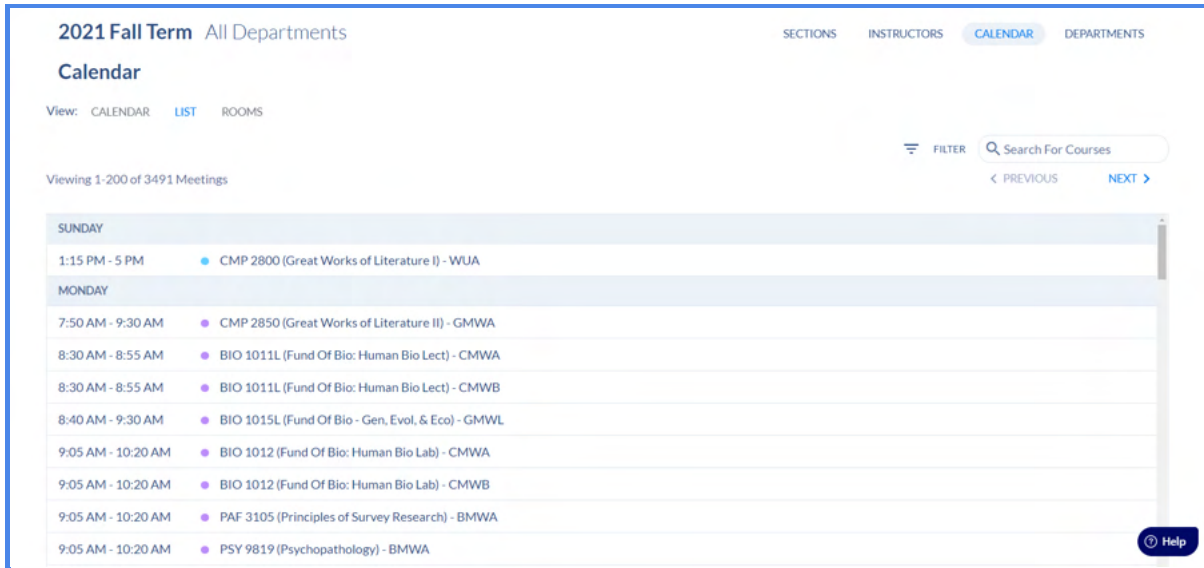
Note: Under this view, you may also use the search engine to search up the course that is scheduled for the term.

If you hover the mouse over a class section, it will reveal to the users additional information on the course that is scheduled for the term (i.e. Title of the Course, Time, Instructor, Call Number [Class Number]).
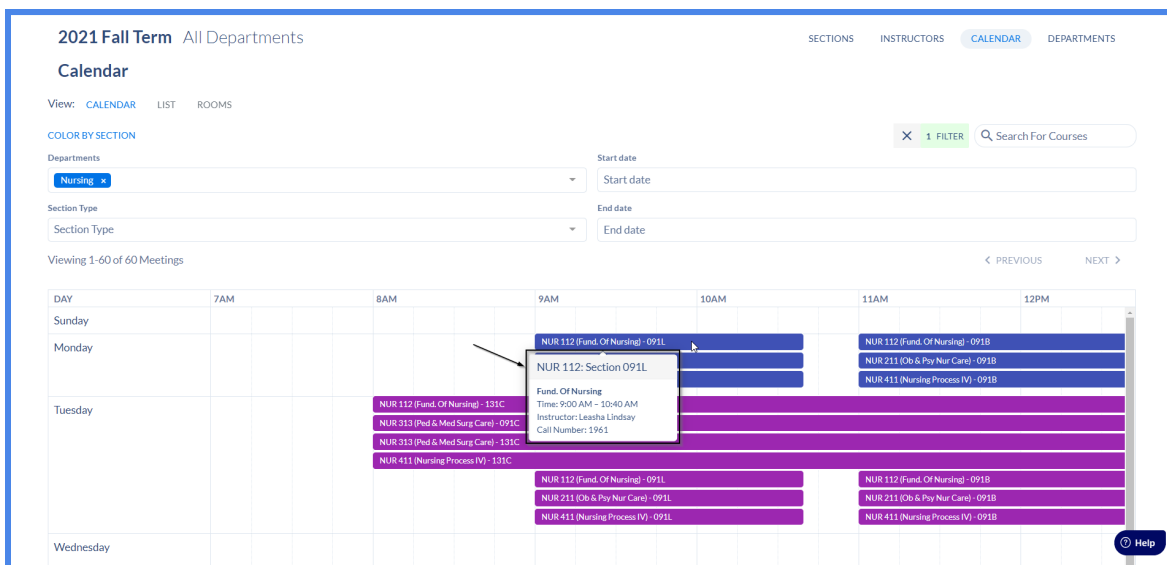
List View

List View organizes each day of the week and the sections scheduled for each day and their times.

Note: *Under this view, you may also use the search engine to search up the course that is scheduled for the term.*

Rooms View

Rooms View breaks down the individual calendar view per-room and displays each room's usage by day of the week and time.

Note: You may use the search engine to find the room where the class sections are specifically assigned in.

Filters

1. Under the **Calendar View** and **List View,** specific filters are utilized to narrow down your search for class sections scheduled in the term;

   a. *Department field* - Shows you all class sections that are scheduled for the term that belong to a specific department (e.g. If you select the 'English' Department, all English Courses and its' Class Sections will be shown in the view).

b. **Section Type field** - Filters all class sections by components of the course (e.g. If you select Recitation, all Courses and Class Sections that are scheduled with Recitation will be shown in the view).

c. **Start Date/End Date fields** - This can be used to filter for sections within a specific term (i.e. sections with different parts of terms). However, this will not show data in another term.

2. Under the **Rooms View,** the *Department field* is utilized to search for rooms that are department owned and as well to narrow down your search for class sections that are assigned to specific rooms owned by the department.

Note: Section Type field and *Start/End Date fields* filter the same way under the **Calendar View** and **List View.**
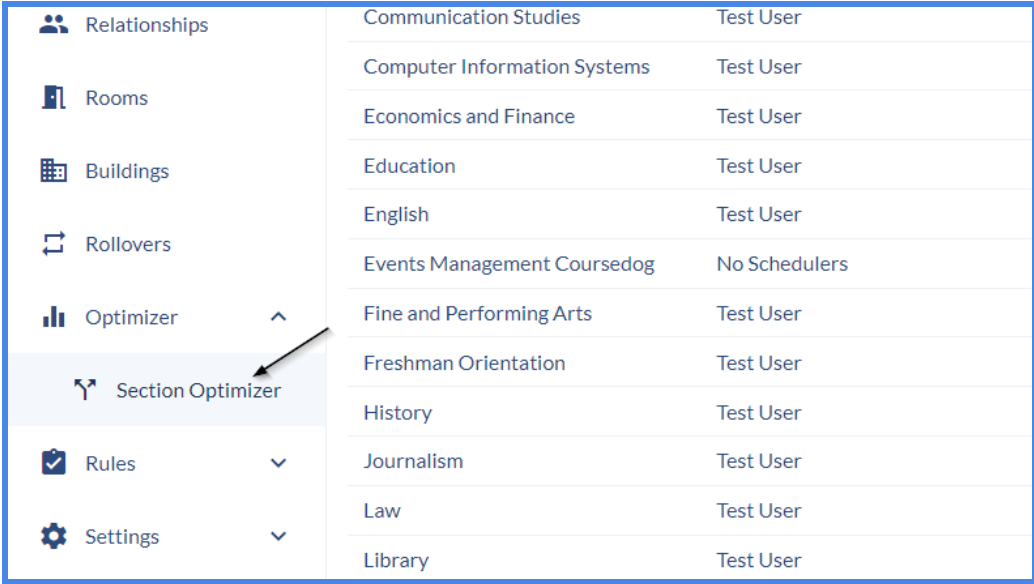
*You can utilize the **Department field** and **Section Type field** interchangeably to further narrow down your search (e.g. Under the Calendar View, the user lists 'Natural Sciences' department under the **Department field** and lists Lecture and Laboratory under the **Section Type field**, this will only show you class sections that belong to the Natural Sciences department and its class sections that are Laboratory and Lecture components).*

Running the Room Optimizer

Once the class schedule is created for your campus, you may proceed to the Section Optimizer to mass assign rooms to the class sections for the entire term.
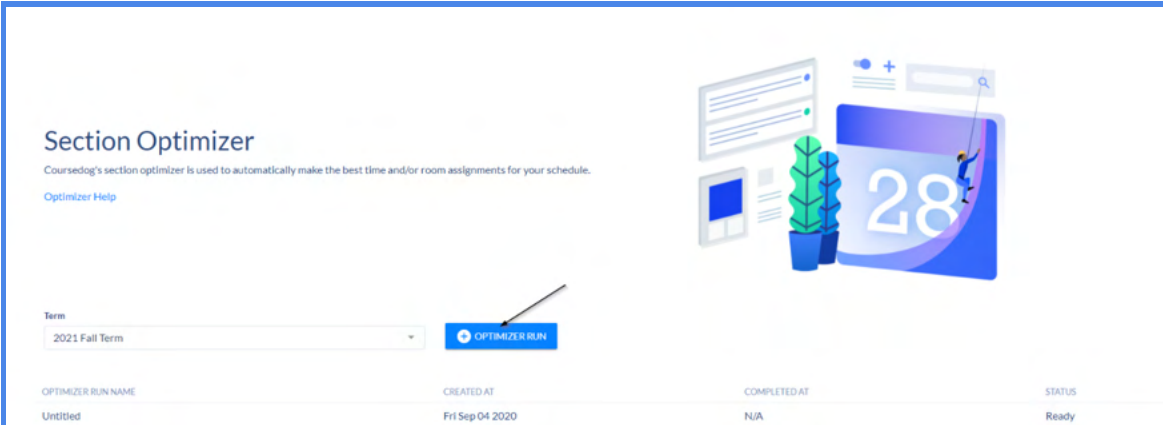
Creating a Run

1. To create a new optimizer run, on the home page go to Optimizer → Section Optimizer, which will bring you to the following page, which shows all existing runs that have been created for each term.

2. To create a new run, first select the term for which you want to create a run, and then click **"+ Optimizer Run"**.

Additionally, this page will also show you the status of all existing runs and indicate when a run has been completed.

Once you create a run, you will be redirected to the Optimizer Settings page. On the top of the page will be a progress bar that contains the following elements (see below for example):

Element Name	Description
General Settings	Contains all optimizer settings
Section Conflicts	Displays all section-level conflicts that might impact optimizer performance
Room Bottlenecks	Displays all potential room bottlenecks that might impact optimizer performance
Optimize	Contains the "Run Optimizer" button - intended to be clicked after all settings are defined, and conflicts/bottlenecks have been resolved.

Additionally, each page contains a "*To Do*" checklist, indicating what needs to be accomplished on each page before moving forward.
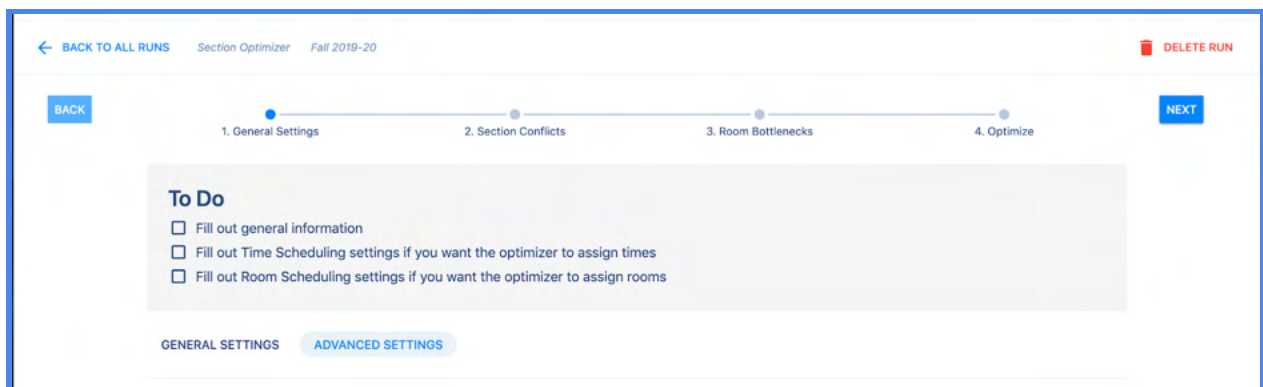
Settings that Do Not Change

CUNY users **should not change the following settings** on the optimizer, as we are currently restricting the optimizer to be used for room assignments only:

The following are three time-related preferences:

- Preferred Times Weight
- Conflict Times Weight
- Preferred Meeting Length Weight
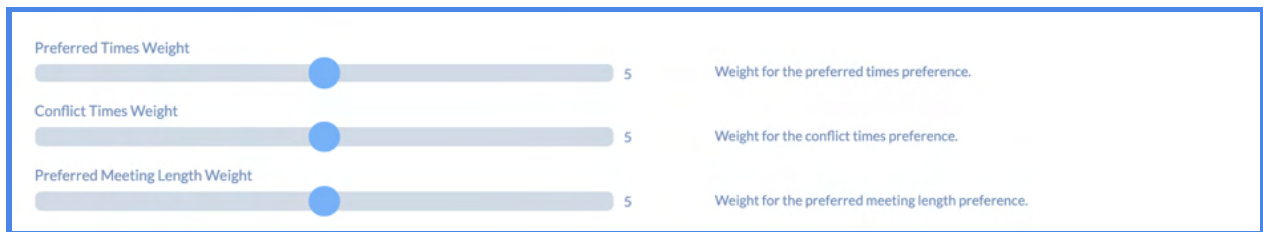
If CUNY users do change these settings, it could negatively affect optimizer results.

Cancelled Sections in the Optimizer

All sections (including cancelled sections) are automatically included in the optimizer unless specifically excluded. To exclude cancelled sections, set the below filter:

- Where ->"Class Status" -> "Is Not" -> "Cancelled
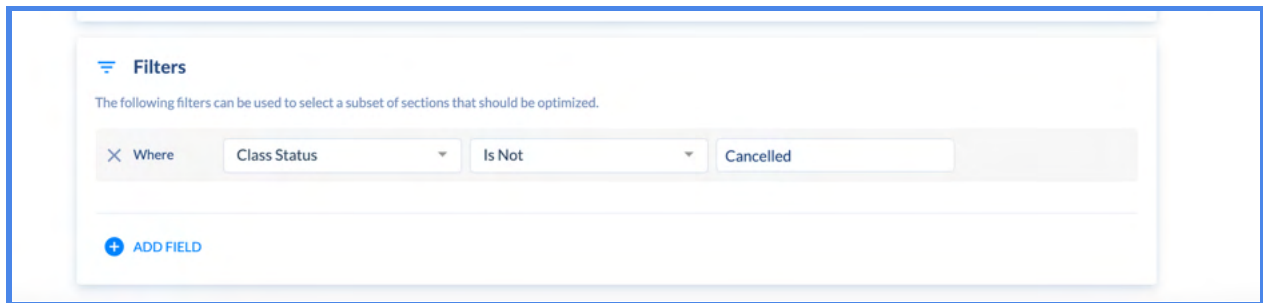
Combined Maximum Enrollment in the Optimizer

If the optimizer is assigning rooms to a section in a relationship, the max enrollment capacity value that the optimizer will look at to determine what rooms are large enough for that section, will be the Relationship's Combined Max Enrollment:

e.g. If you have two sections (Section A & B) in a relationship with a Combined Max Enrollment of 50, and the optimizer has a Minimum Seat Utilization of 50%, then the optimizer will try to assign a room with a capacity between 50 & 100 to both sections.

If there is no Combined Max Enrollment value set on the relationship, then the optimizer will sum up the enrollment capacities of all of the individual sections, and use that value as the combined max enrollment:

For example, let's say we have

Section A: Max Enrollment - 12

Section B: Max Enrollment - 18

The Calculated Combined Max enrollment for these two sections used by the optimizer is 30.

Optimizer Potential Conflicts/Issues

Once you have created an optimizer run, and defined the optimizer settings, you will be presented with two pages that are intended to help identify issues that may negatively impact optimizer performance and results.

Optimizer Settings

The optimizer has many settings that will define the behavior of the optimizer. These settings are defined before a run is started, in the optimizer settings page, shown below:

The settings are divided between **General** and **Advanced** settings. General settings are commonly adjusted settings, while advanced settings are less commonly adjusted and relate to more specific preferences and constraints. The below table describes the functionality of each individual setting both on the general and advanced levels.

General Settings

The optimizer has the following settings under General Settings:

General Information Card	
Setting Name	**Description**
Optimizer Run Name	The name of the Optimizer
Academic Departments	Which academic departments will be included in the optimizer. Default is to "*All Departments*," however, the optimizer can be run for specific departments if needed.
Send Email Notifications	Indicate whether you would like to receive an email notification when the run is completed. Note that this is defaulted to yes but can be set to no if desired.

General Information

Optimizer Run Name

[   ]   Name of optimizer run. For example, Spring 2019 Room Assignment.

Academic Departments

[All Departments   ▼]   This setting is used to run the optimizer for specific academic departments. Default is all departments.

Send Email Notifications

[YES] [NO]   Coursedog will send you an email notification when the optimizer run has been completed.

Note: *Although an optimizer run can be created for a specific Department (i.e. Math Department),* **the optimizer will still take into account all the courses/sections of all the Academic Departments and check for Section Conflicts and Room Bottlenecks** *as it is looking at all possible scenarios for room assignments that may have impact on the Department and its courses and sections you are creating a run for.*

Room Scheduling Card	
Setting Name	**Description**
Assign Rooms	A Yes/No input used to indicate if the optimizer should perform Room Optimization, assigning the best-fit rooms to sections. The optimizer brings in all rooms that are available to be scheduled (e.g. rooms that are coded with '43' in CUNYfirst)
Minimum Seat Utilization	A percentage input that indicates the minimum enrollment capacity to room capacity ratio allowed. For example, if the Minimum Seat Utilization is set to 50%, then a section with an enrollment capacity of 20 can be in a room with a capacity of 40, but a section with an enrollment capacity of 19 cannot be in a room with a capacity of 40. This is a hard constraint. If a particular room does not get assigned to a section, the first check a user should make is if that room

	satisfies the minimum seat utilization. See below for an example.

Example of Minimum Seat Utilization Setting

Here is an example of how the optimizer uses the minimum seat utilization setting - let's say a course, Course X, has a maximum capacity of 20 and minimum seat utilization is set to 50%.

The optimizer has 3 rooms to select from, Room S 237, Room S 238, and Room S 313, with room capacities of 25, 42, and 12, respectively.

S 237	Green Hall	Seminar	25
S 238	Green Hall	Seminar	42
S 313	Green Hall	Seminar	12

- The optimizer will not assign Room S 313 as it cannot accommodate the maximum capacity for the course.

- The optimizer will not assign Room S 238 as seat utilization would be less than 50% (only 48% of the seats would be occupied by students in Course X).

- The optimizer will assign Room S 237 as it can accommodate the maximum capacity for the course and seat utilization would be greater than 50%.

Note: *If the minimum seat utilization is set to 0%, that means there is no minimum seat utilization restriction (e.g. A class section that has enrollment capacity of 5 students could be assigned to a room that has a capacity of 5 or greater).*

The optimizer will look at the preferred room capacity (i.e. Room Preferences Card) and try to assign a room that is close to this preference. *If the system is unable to find the class section a room that has a capacity that is equal to its max enrollment capacity, then there is a possibility that the optimizer will assign a class section to a room that has a capacity greater than the max enrollment.*

Back to Back Preferences Card	
Setting Name	**Description**
Back to Back Preferences	A Yes/No/Neutral input that will dictate whether the optimizer should seek to schedule sections back to back. Note that CUNY will not be using time optimization, so this setting should be used to dictate whether back to back sections should be taught in the same room, often to satisfy faculty preferences.
Back to Back Duration	If two sections are intended to have back to back meeting patterns, what is the maximum length of time between two meeting patterns before they are not considered back to back? For context, this often is the length of a school's 'passing period' between classes (ex. 20 minutes between two different sections of a math course)
Same Room	A Yes/No input indicating whether the optimizer should schedule back to back sections in the same room. If 'Yes,' or 'Neutral,' is selected above, users will likely want to select 'Yes' for this input to impact room assignments.

Max Number	This input allows users to dictate how many sections should be scheduled back to back. For CUNY users, the question is what is the maximum number of back to back sections that should be scheduled in the same room? For example, if there was a Math course with four sections taught by the same faculty member, and a limit of two back to back sessions was set so as to offer more scheduling flexibility for instructors, only two of four sections would be scheduled back to back.
Enrollment Difference	This setting dictates the maximum percent difference in enrollment capacity for sections to be considered back to back. What is the maximum difference in enrollment two sections can have before they are not considered back to back e.g., if a faculty member is teaching two classes back to back and one class has an enrollment capacity that is double the enrollment capacity of the other class, should they still be recognized as back to back? Note: Enrollment capacity is calculated as the ratio in the difference in enrollment between the two sections to the larger of the two sections Example: if an instructor is teaching a 30 person lecture and then a 15 person seminar, should the optimizer recognize these as back to back? Increasing the value of the slider in the optimizer will increase the threshold for sections to be identified as back-to-back sections. For example, if it is set to 50%, differences in enrollment capacity of 50% or less would be considered back to back, whereas differences in enrollment capacity of over 50% would not be considered back to back.

Note: *If enrollment difference is set to 50%, as demonstrated above, a 30 person lecture and a 15 person seminar could be considered back to back, whereas a 30 person seminar and 14 person seminar could not be considered back to back.*

When enrollment difference is utilized, it does not matter the order of class sections that are taught back to back from an instructor *(e.g. An instructor teaching a class section that has an enrollment capacity of 15 students and afterwards teaches a class section that has an enrollment capacity of 30 students or when an instructor is teaching a class section with 30 students and the section after that has an enrollment capacity of 15 students). The Enrollment Difference is based on the ratio of the difference in enrollment capacity to the larger of the two class sections.*

Filters Card	
Setting Name	**Description**
Filters	This setting filters the sections the optimizer will assign rooms to i.e., 'Where Section Type Contains Lab'

Note: This does not filter the rooms that are included in the optimizer. Rooms that should be excluded from the optimizer but available for manual assignment should be coded with code '43' and '96' in CUNYfirst.

Please reach out to your CUNY Central Contact (Office of the University Registrar) to make adjustments to how rooms are coded in CUNYfirst.

Additional filters can be added for an optimizer run at the bottom of the "**General Settings**" page. A filter can be added using any field in the section template.

1. To add a filter click the "**+add field**" button,
   a. Select the field upon which you wish to filter

i.   Users can filter by any field associated with sections in the section editor
   b.   Determine logic of the filter (e.g. Contains, Is, Is not, Is greater than, etc.)
   c.   Then use the text box to enter a value: (i.e. Main)

Filters

The following filters can be used to select a subset of sections that should be optimized.

| ✕ Where | Campus ▾ | Is ▾ | Main |

⊕ ADD FIELD

*Note: In order for the filter to work properly, ensure that the value you are entering in the text field is correct (**correct capitalization is required** i.e. 'Main'). Also note that some fields will have a dropdown option.*

*The only fields that do not require text entry are "**room**" and "**session**" which instead prompt you to select from a dropdown menu.*

The "contains" field has a collection of terms that are defined in their function in the table below:

Term	Definition
Does not Contain	If this value is present in the section field being searched for, the section is omitted from the optimizer run
Is	If this value is the value in the section field being searched for, it will be included in the optimizer run
Is not	If this value is the value in the section field being searched for, it will not be included in the optimizer run
Is not Empty	If the field in the section being searched for is not empty, it will be included in the optimizer run
Empty	If this field in the section is empty, it will be included in the optimizer run
Starts With	If this field in the section starts with the entered value, it will be included in the optimizer run

Ends With	If this field in the section ends with the entered value, in will be included in the optimizer run
Longer Than	If this field in the section is longer than the specified length, it will be included in the optimizer run
Shorter Than	If this field in the section is shorter than the specified length, it will be included in the optimizer run

Advanced Settings

Advanced settings are used to define/modify additional constraints and weights for the optimizer.

Please note that **any instructor related preference settings are not relevant to go-live**, though section level preferences are:

Priority Preferences Card	
Advanced Setting Name	**Description**
Standard Meeting Pattern Preferences	Prioritize the room preferences of sections that use standard meeting patterns, as opposed to custom times. Ex. increasing these settings will give preferred rooms first to sections that use standard meeting times.
Section Length Preference	Prioritize the room preferences of sections that meet for an amount of time equal to or greater than the specified value. Ex. increasing these settings will give preferred rooms first to sections that align with the length requirement set here.
Section Meeting Day Preference	Prioritize the room preferences of sections that meet for a number of days per week equal to or greater than the specified value.

	Ex. increasing these settings will give preferred rooms first to sections that meet at the threshold frequency set here.
Enrollment Preference	Prioritize the room and time preferences of sections that have an enrollment equal to or greater than the specified value. Ex. increasing these settings will give preferred rooms first to sections that have an enrollment count at or above the set value.

Priority Preferences

The priority preferences card has a collection of fields that allow for the optimizer to prioritize certain sections as defined in this card when making assignments. For example, if sections following standard meeting patterns, as opposed to custom meeting patterns, should be prioritized as a means of incentivizing the use of standard meeting patterns, then this field should be toggled to 'Yes.' Similarly, if there are certain section lengths, meeting days, or enrollment capacities that should be prioritized, this can be indicated here.

Weights Card	
Advanced Setting Name	**Description**
Preferred Times Weight	The weight of satisfying any preferred time preferences that have been provided by

	instructors. (Time-related preferences, not in use for Phase II)
Preferred Meeting Length	The weight of satisfying any preferred meeting length preferences that have been provided by instructors. (Time-related preferences, not in use for Phase II)
Conflict Times Weight	The weight of satisfying any conflict time preferences that have been provided by instructors. (Time-related preferences, not in use for Phase II)
Back to Back Sections Weight	The weight of satisfying any Back-To-Back-Sections preference that have been provided by instructors. (Instructor Preferences, not in use for Phase II).
Time Interval Between Sections Weight	The weight for satisfying any Time-Interval-Between-Sections preferences that have been provided by instructors. (Instructor Preferences, not in use for Phase II).
Preferred Room Weight	The weight for satisfying any preferred room preferences provided by instructors or set on specific sections. (Note that this is not relevant for Phase II).
Preferred Room Type Weight	The weight for satisfying any preferred room type preferences provided by instructors or set on specific sections. (Note that this is not relevant for Phase II).
Preferred Room Features Weight	The weight for satisfying any preferred room features preferences provided by instructors or set on specific sections.

Preferred Room Capacity Weight	The weight for satisfying any preferred room capacity preferences provided by instructors or set on specific sections.
Preferred Building Weight	The weight for satisfying any preferred building preferences provided by instructors or set on specific sections.
Linked Sections Weight	The weight for abiding to any linked section relationships. Note that the Linked Sections weight is used to determine how important it is to satisfy linked section relationships (also known as combined sections in Peoplesoft). **If combined sections must have the same room, then set this weight to 10 (which sets it as a hard constraint).**
Department Rooms Weight	The weight for prioritizing department-owned rooms when assigning rooms to sections.

Weights

Preferred Times Weight	5	Weight for the preferred times preference.
Conflict Times Weight	5	Weight for the conflict times preference.
Preferred Meeting Length Weight	5	Weight for the preferred meeting length preference.
Back To Back Sections Weight	5	Weight for instructor back to back preferences.
Time Interval Between Sections Weight	5	Weight for time between sections preference.
Preferred Room Weight	5	Weight for the preferred room preference.
Preferred Room Type Weight	5	Weight for the preferred room type preference.
Preferred Building Weight	5	Weight for the preferred building preference.
Preferred Room Features Weight	5	Weight for the preferred room features preference.
Preferred Room Capacity Weight	5	Weight for preferred room capacity preference.
Department Rooms Weight	5	How important it is to schedule sections in department-owned rooms.
Section Relationships Weight	5	Weight for sections in a Time and/or Room Relationship.

If there are no room preferences in the system, we suggest turning the following weights to zero:

1. Preferred Room Weight
2. Preferred Room Type
3. Preferred Room Features
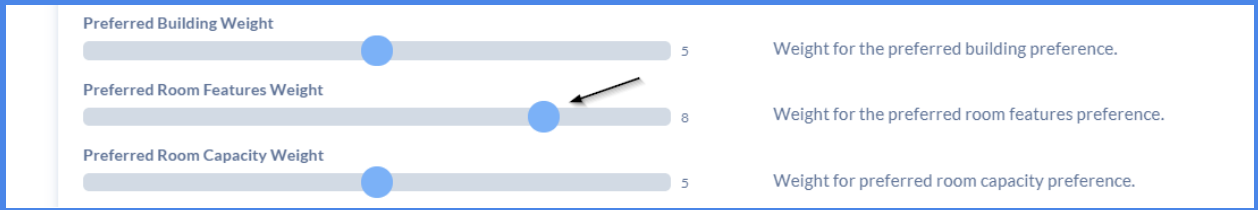4. Preferred Room Capacity
5. Preferred Building

Note: The weights range from 0-10.

- A **value of 0** indicates the preference should have **no relevance** on the output of the optimizer, and resultantly can be ignored.

- A **value of 10** indicates a hard constraint, meaning that the **optimizer has to satisfy that preference** otherwise no room and assignments will be made.

Effectively, adding weight to any of the above settings will tell the optimizer to prioritize meeting those requirements, and removing weight will have the inverse effect.

Example of using Weights in Advanced Settings

For example, all my Anthropology Courses have a preferred room feature of '*Smart Room*', if I set the weight higher for '*Preferred Room Features,*' I am telling the system to prioritize assigning Anthropology class sections to facilities that have the room feature of '*Smart Room*.'

Section Conflicts

After **General Settings/Advanced Settings** is complete, next is "**Section Conflicts**," this lists all conflicts in the current academic schedule that relate to optimization.
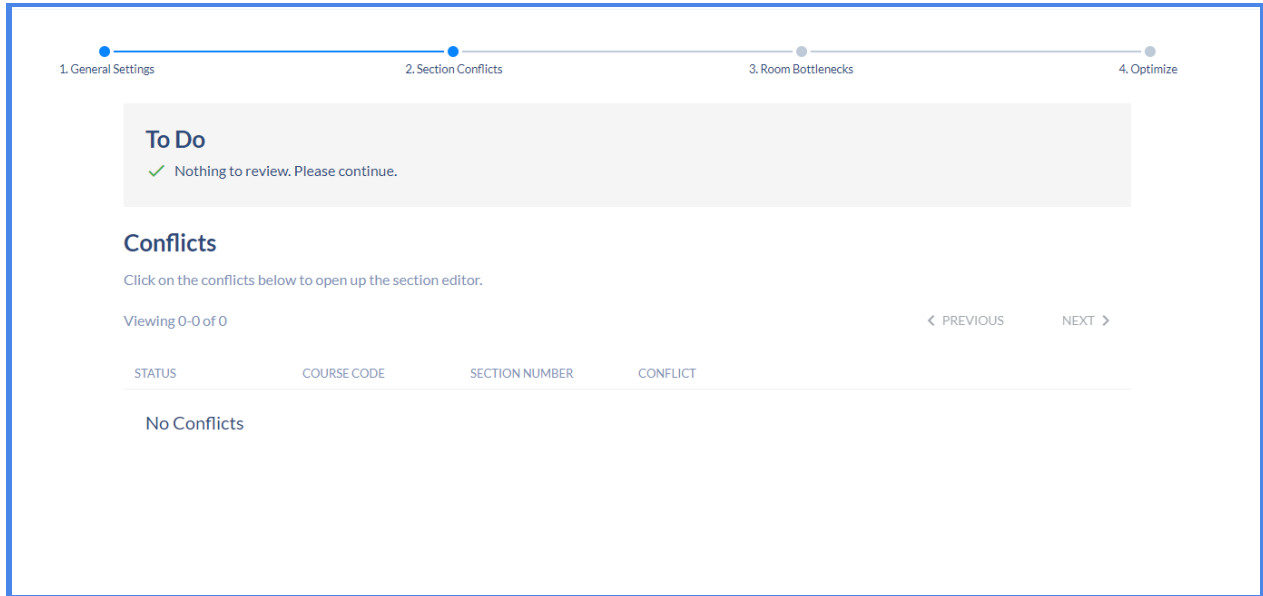
The following conflict types are related to Optimization and can potentially be flagged in the 'Conflicts' screen of the Optimizer Run:

Conflict Type	Description
Section With No Max Enrollment Capacity	This conflict affects the room optimizer because the enrollment capacity is used to determine if a section - room assignment violates the minimum seat utilization setting. Sections with no enrollment capacity will not be assigned rooms.

Sections With Double Booked Rooms	The optimizer treats double booking rooms as a hard constraint - in other words, it will never double book a room. As a result, if sections provided to the optimizer have a pre-existing room double booking, the optimizer will not be able to successfully make any room assignments, and will likely fail. To resolve this, please assign all sections with room double bookings a 'Same Time, Same Day, Same Room' relationship, which informs the optimizer that the double bookings are allowed and intended.
Sections With Double Booked Instructors	This conflict is similar to the Double Booked Rooms conflict, except only applies when running the time optimizer. The time optimizer will not assign meeting times to a section that results in a double-booked instructor, and this is treated as a hard constraint. If any sections come into the optimizer with pre-assigned times and a double-booked instructor conflict, the Same Time & Same Day relationship must be assigned to those sections to inform the optimizer that the conflicts should be ignored. Note that because the time optimizer is not going to be run this is not relevant.

Note: *All classes, including cancelled ones, show up as conflicts, unless settings have been configured to exclude these classes. If cancelled classes are showing up as conflicts and you do not believe this should be the case, please reach out to your CUNY Central contact (Office of the University Registrar).*

Additionally, **even if the optimizer is to be used for a singular department, the optimizer will take into account all of the scheduled courses.** *All conflicts (regardless of department) will be displayed as the existence of those conflicts will impact optimizer performance. For example, the optimizer in the image below is being used for the Math department, but conflicts in the computer science science section are being displayed:*

Room Bottleneck

The second page lists all potential room bottlenecks that have been calculated in the current academic schedule, an example shown below:

There are two types of room bottlenecks that could be detected:

Bottleneck Type	Description
No room with the required capacity	This is detected when a section has an enrollment capacity greater than the capacity of any room in the system
Not enough rooms with the required capacity	This is detected when a section requires a room with a minimum capacity, but multiple other sections require that same room at the same time.

Note: You do not need to delete your current optimizer run to clear the list of issues on the Room Bottlenecks screen. Bottlenecks can be resolved within the optimizer run by selecting the bottleneck, or in the section editor. They may not show that they are resolved in your optimizer run until you refresh the page.

Running The Optimizer

Once all conflicts/bottlenecks have been resolved, you may proceed to the "**Run Optimizer**" page:

Click the "**Optimize!**" button and the optimizer will start immediately. You will be shown a progress bar to check in on the progress of the run:

Run The Optimizer

Click optimize to create your perfect schedule. Once the optimizer has completed, you will be granted access to the Optimizer Results dashboard, which shows the newly built schedule along with many pre-built reports.

OPTIMIZING...

1%   ● Optimizing...

Estimated Time Remaining: 30min

Note: *The optimizer creates a copy of the section data that can be found in the Section Editor. As a result, running the optimizer will not impact the existing schedule, and the optimizer can be run multiple times until the desired result is reached. Once you have completed an optimizer run with a satisfactory result, you can merge the results back into your existing schedule (see below for details on merging).*

If a run fails, review the run's settings (i.e., section filters and weights) and create a new optimizer run to re-try. *More often than not, this is user error as a result of infeasible constraints arising from the run's settings. Once the run is completed, the progress bar will reach 100% and you will be redirected to the Optimizer Results dashboard. Runs that fail cannot be rerun, and instead a new run must be created.*

It is recommended setting the Email notifications to Yes in the General Settings card to alert you when the Optimizer run is completed.

Optimizer Results Dashboard

Once the Optimizer Run status is complete, click on the run to view your results.

All.Dept. 3rd run. 08.04.2020	Tue Aug 04 2020	Tue Aug 04 2020	Completed

The Optimizer results dashboard is used to view the result of optimizer assignments, view reports, and conflicts, and merge the results back into your current schedule. The top of the dashboard will indicate which user ran the optimizer:
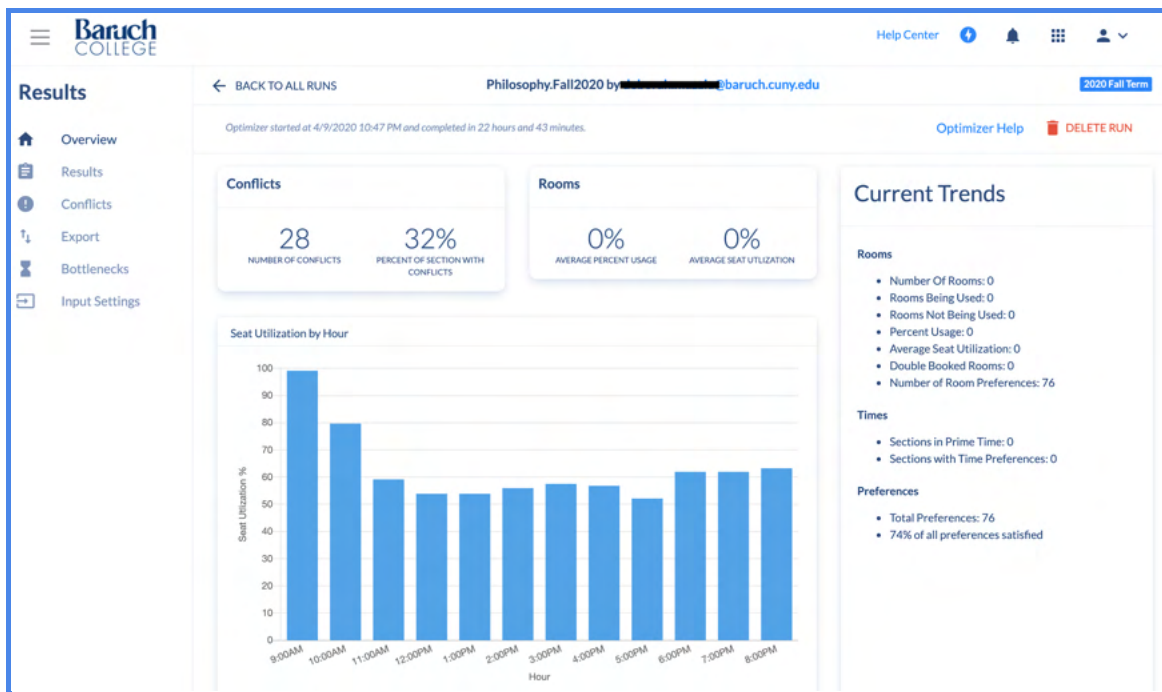
The dashboard consists of the following pages:

Page Name	Description
Overview	This tab shows optimizer-related reports, displaying Conflicts, Rooms and Current Trends. This also includes information on the Seat Utilization by the Hour including Hourly and Daily Schedule Distribution.

Results	This tab lists all sections provided to the optimizer and their time/room assignments
Conflicts	This tab lists all conflicts that exist in the optimizer output
Export	This tab allows you to download CSV reports for the optimizer output: ● Course Sections List ● Room Bottleneck List ● Optimizer Assignments
Bottlenecks	This tab lists all room bottlenecks that exist in the optimizer output
Input Settings	This tab allows you to view the input settings that were defined before the optimizer run

Viewing Results

The "Results" tab lists all the sections contained in the optimizer run in a view similar to the "Section Editor." You can view the results by individual sections or grouped together in courses. Note that all results are view only. If you want to make any individual changes we recommend merging the optimizer run with the schedule, and then making any necessary changes within the Section Editor. You can filter between:

1. All sections scheduled successfully by the optimizer
2. All sections not scheduled by the optimizer
3. All sections scheduled but have preference conflicts
4. All sections excluded from the optimizer
   a. Note that these can be ignored when viewing optimizer results, so long as they are marked as excluded.

Next to each section, there will be an icon indicating one of the following four statuses:

1. <u>Checkbox</u> - Optimizer successfully made all room assignments
2. <u>Warning</u> - Optimizer made a room assignment, however, the assignment violates some soft constraints due to preferences.
3. <u>Not Scheduled</u> - Optimizer was not able to assign a room. The likely cause of this issue is if either;
   a. The input schedule contained a Double-Booked Room Conflict
   b. Or there was a room bottleneck issue that prevented the optimizer from assigning all sections to a room that would not violate the minimum seat utilization.
4. <u>Excluded</u> - Sections that exist in the relevant scheduling term but were excluded from having rooms assigned by the optimizer. For example, canceled sections.

Conflicts

All conflict and preference violations that exist in the schedule are displayed here. Users can filter by conflict type to get a more granular view of the existing conflicts.

Exports

If you would like to export your results, there are three options:

1. **Course Sections List Report** - This report creates a CSV that is a direct copy of the Course Sections List in the Reporting Dashboard, however, includes data for optimizer assignments. This will include all optimizer room assignments, but will also include many other section fields, and will include sections that the optimizer was not able to make assignments for.

2. **Room Bottleneck Lists** - This report lists all room bottlenecks that are still present in the optimizer output results.

3. **Optimizer Assignments** - This report only lists sections that the optimizer made assignments to, and only includes information on Course Code, Section Number, Times, and Rooms.

Bottlenecks

This view displays room bottlenecks present in the system. If these were all resolved prior to the optimizer run, there should be no room bottlenecks detected.
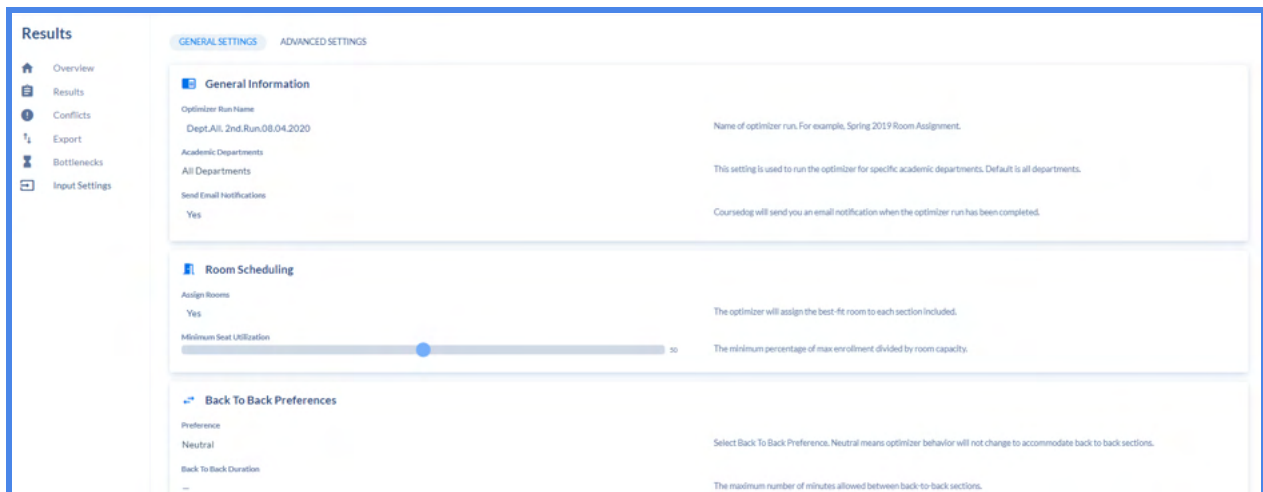
Input Settings

Input settings review the settings that were configured for the specific optimizer run in review so users can track the settings leveraged for each run, and iterate on these settings for future runs in order to compare outputs.

Merging Results

When you are merging results, you have two choices

1. **Bulk Merge** - Merge results for all sections at once

2. **Single Merge** - Merge results for a single section

Bulk Merge

A **Bulk Merge** can be accomplished by;

1) Clicking the "**Merge Results**" button on the top right of the "*Results*" page:
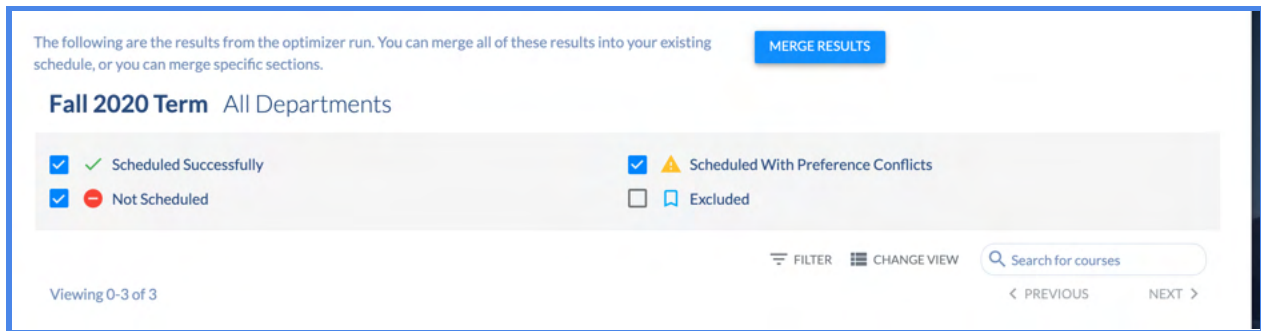
2) Clicking that button will open up a confirm modal to ensure you want to perform this action.
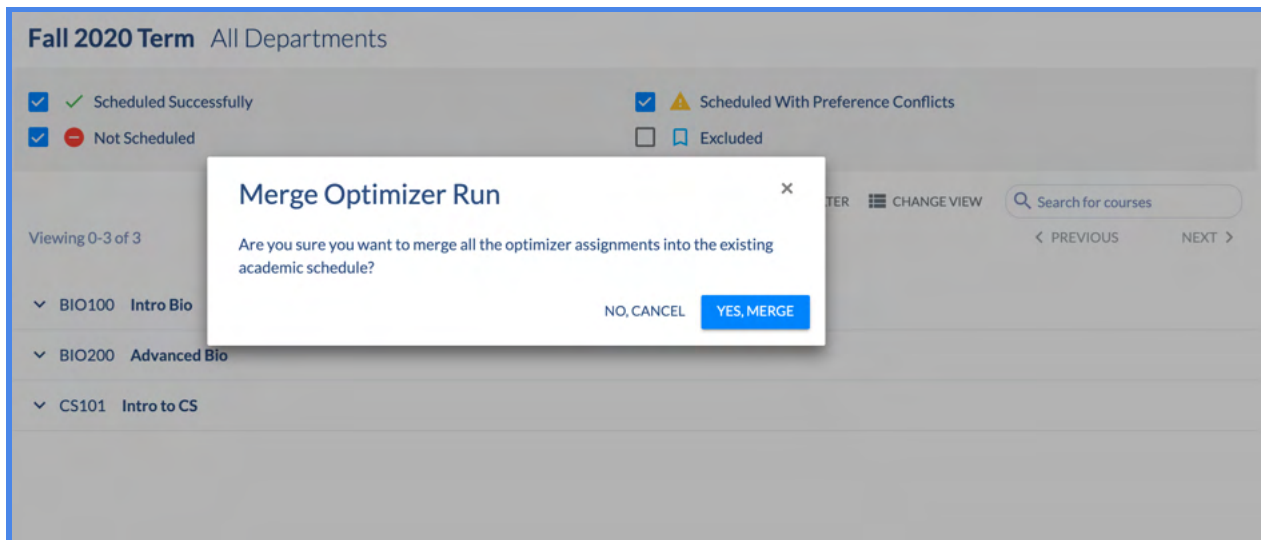
Single Merge

A **Single Merge** for an individual section(s) can be performed by;

1) Clicking on the "**Merge Section**" button in the section row, on the left:

Note: Currently, optimizer merges don't trigger the real time integration as it is a bulk action that merges optimizer data into schedule data in Coursedog, but not in Peoplesoft. The results of optimizer mergers should sync nightly in the SIS. The nightly sync takes place between 2:00 a.m. and 3:00 a.m. EST.

Exam Scheduling

You can manually schedule exams on a class-by-class basis or use the Exam Optimizer. The Exam Optimizer scheduling process is a useful method to schedule exams in the same facility as the primary meeting for the class or use custom rules to set parameters if you want certain sections to be in another room.

Manually Schedule an Exam

1. To Manually Assign an Exam Schedule to a Section, select the **'Section Editor'** tab in the home menu and open up the section you would like to schedule an exam for.

2. Once the Section is opened, scroll down until you have reached the *Exam Meetings* card and select **'+Exam Meeting'**.
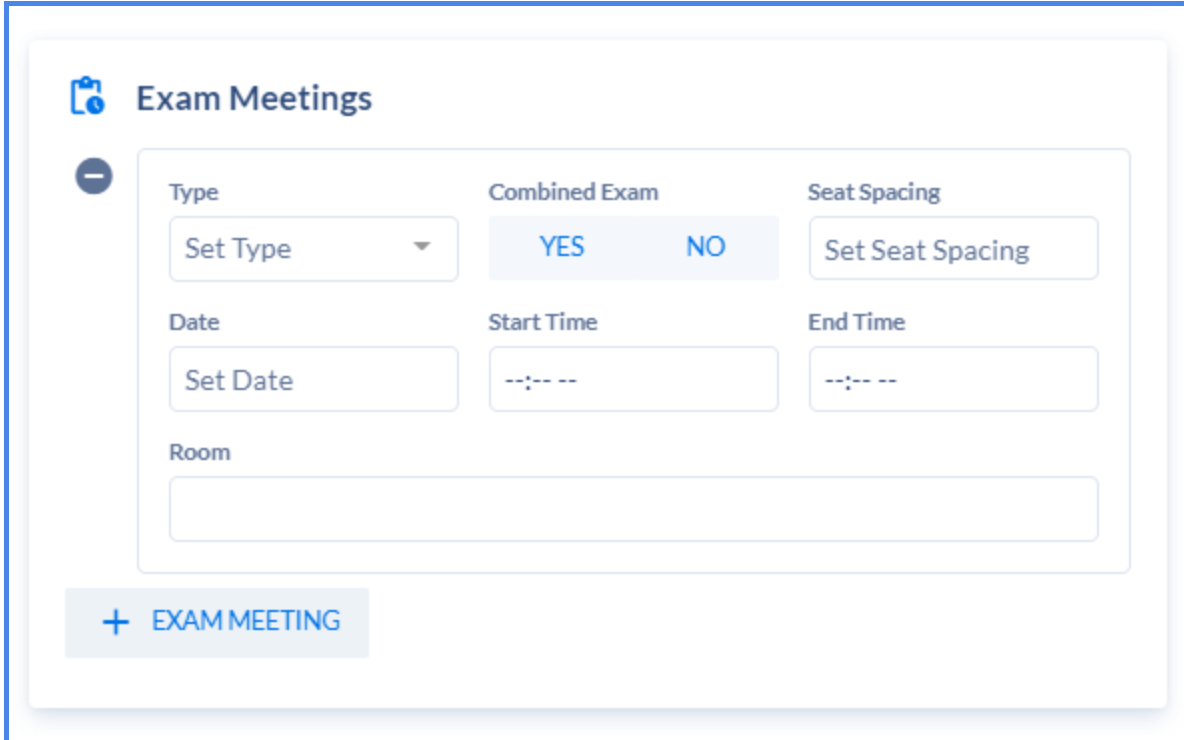
3. Once the card is opened, certain fields will appear. List of the fields are provided below with their functionality:

    a. **Type** - There are two options you can select from:
        i. Final
        ii. Makeup
    b. **Combined Exam** - If there are more than one section taking the same exam.
    c. **Seat Spacing** - The number of seats apart each student must be from each other during the Exam
    d. **Date** - Schedule the Date for the Exam for this Section
    e. **Start/End Time** - Select the times for the Exam for this Section
    f. **Room** - Select the room for the Exam for this Section

Note: If the Seat Spacing option is 1 or greater, this directly affects what room can be used for the Exam. (i.e If the user inputs the Seat Spacing as 1 in a section that has an Enrollment total of 20, the room has to have a Maximum Room Capacity of 40 or greater to accommodate for the Seat Spacing).

Exam Meeting Pattern for Exam Optimizer

Exam meeting patterns are used to define what time and date combinations are allowed for exams. These settings are used in the Exam Optimizer by determining which times are best associated with specific meeting patterns.

In order to reach the Exam Meeting Pattern page:

1. Select **'Settings'** in the dashboard and click on **'Meeting Patterns'**

2. The first page will show your standard meeting patterns, on the top of the page select **'Exam Meeting Patterns'** and click on **'+ Add Exam Meeting Pattern'**.

3. Once selected, a window will appear with multiple options described below.

a. **Date** - The date of the exam
b. **Start Time** - Start time of the exam
c. **End time** - End time of the exam
d. **Associated Standard Meeting Patterns** - The list of standard meeting patterns map to this exam meeting pattern. <mark>This mapping is used by the exam optimizer</mark>
   i. If a section meets during the academic calendar on Mon, Wed, from 10AM - 12:30PM, then the optimizer will assign it to an exam on the specified date, from 7AM - 8AM.
e. **Exam Room Mappings** - This field defines what rooms the optimizer should assign to the exam meeting pattern. The are two ways to define this mapping
   ○ <u>Option 1</u> - Indicate the exam will be in the same room as the Academic meetings. This is the default setting if no specific mappings are set up.
   ○ <u>Option 2</u> - Indicate a specific mapping, i.e. if the academic meeting is in Room 1, then the exam should be in Room 2

Example of Option 1:

Example of Option 2:

Add Exam Meeting Pattern ✕

◯ Use Exam Date Period

Exam Period Date Number ❓

2	

Start Time

08:30 AM

End Time

10:00 AM

Associated Standard Meeting Patterns

On Mon,Wed from 7:45 AM to 9:00 AM - MW3,MW3A ✕

Exam Room Mappings

If the section's academic meeting is in one of the following rooms:

QNS01 - C1-02, QNS01 - C1-03
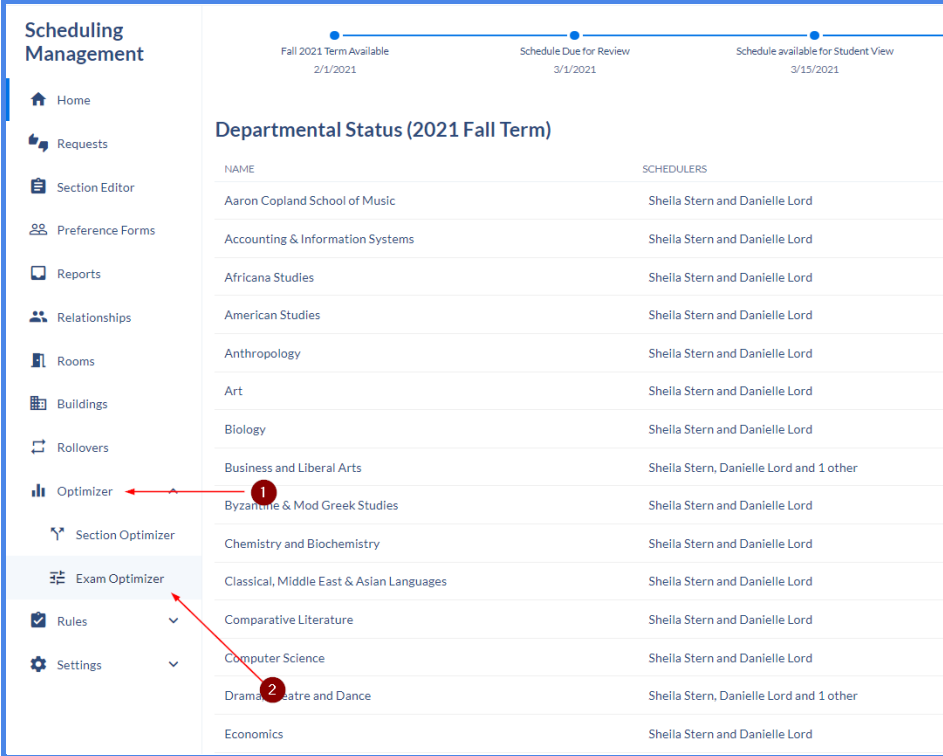
The section's exam meeting should be in the following rooms:

QNS01 - C1-09, QNS01 - C1-10

☑ Else the section's exam room should be in the same room   🗑

+ CUSTOM RULES

ADD

Exam Optimizer

To mass update the Exam Schedule to Sections that have a Standard Meeting Pattern:

1. In the Home Page, Select **'Optimizer'** and then select **'Exam Optimizer'**.

2. Once the Exam Optimizer page opens, select the term the optimizer would run for and click on **'+Optimizer Run'**.

General Settings

3. There are multiple fields to plug in that's provided below:
   a. **General Settings**
      i. *Optimizer Run Name* - Name of the optimizer run
      ii. *Academic Departments* - Users are able to select the departments they want the optimizer to run for. If left blank, the optimizer will assign for every department.
   b. **Advanced Settings**
      i. *Exam Seat Spacing* - Select the number of seats between students during the exam.
      ii. *Use Actual Enrollment* - If set to yes, the optimizer will check room capacity against the section's actual enrollment, opposed to the section's max enrollment.
   c. **Filter** - Use this feature to closely specify what the Exam Optimizer should Schedule Exams for. (i.e Where Instruction mode is In Person)
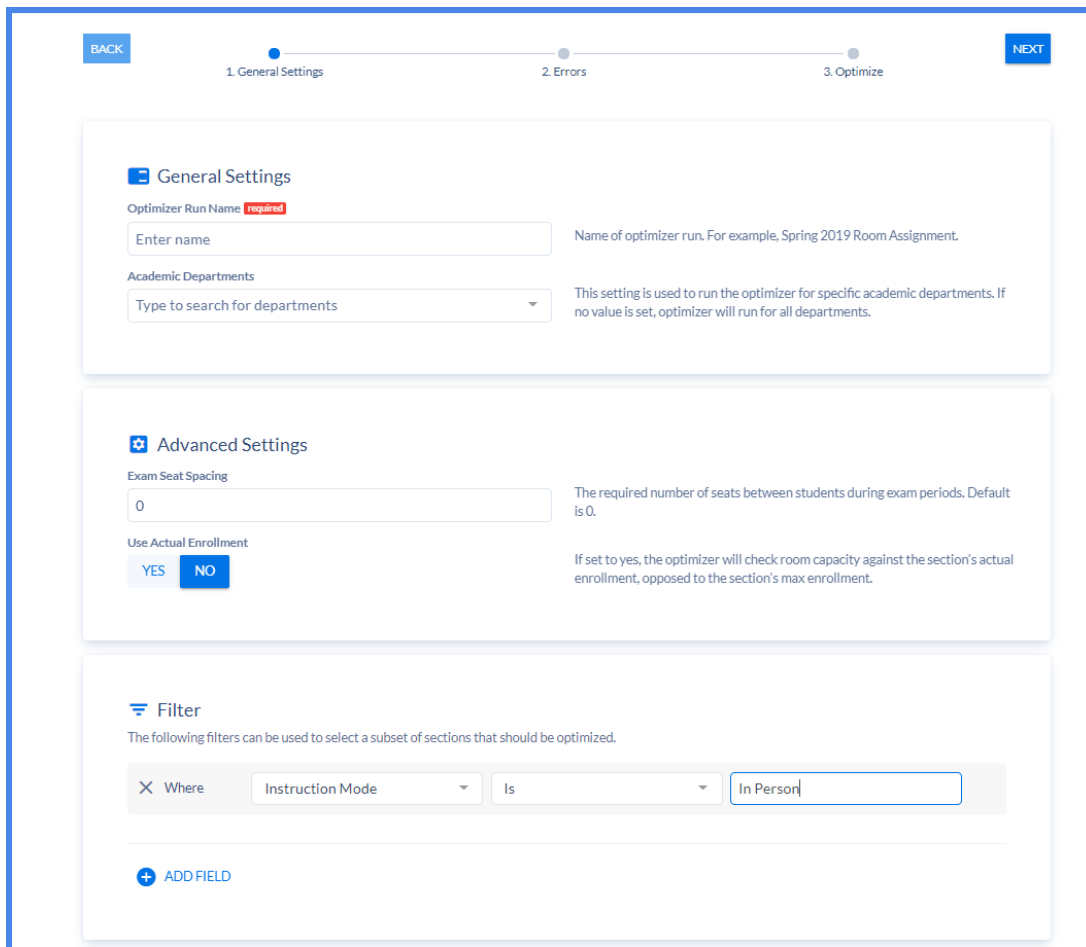
4. Once the fields are filled in, Select **'Next'** on the top right of the page.

Optimizer Errors

Once all of the general settings fields have been completed, Coursedog will provide a table that contains a list of errors that would prevent the optimizer from completing successfully. These errors must be resolved before you run the optimizer.

Below are the list of Errors that may occur:

   a. **Exam Period does not have a date**

This indicates the exam meeting pattern has an empty date field.

   b. **Exam Period start/end date not set on term**

This indicates that the term and part of terms associated with the optimizer run are missing either the exam period start date or exam period end date property.

   c. **Missing term and/or part of term data**

This indicates that either the term (or a part of term assigned to one of the sections) cannot be found or does not exist.

   d. **Exam occurs before the exam period starts**

This indicates that an exam meeting pattern has a date field set to before the exam period.

   e. **Exam occurs after the exam period ends**

This indicates that an exam meeting pattern has a date field set to after the exam period.

f. Section must have enrollment (or max enrollment) set

Based on the "Use Actual Enrollment" setting, the exam optimizer requires all sections to have either the enrollment or max enrollment field populated.

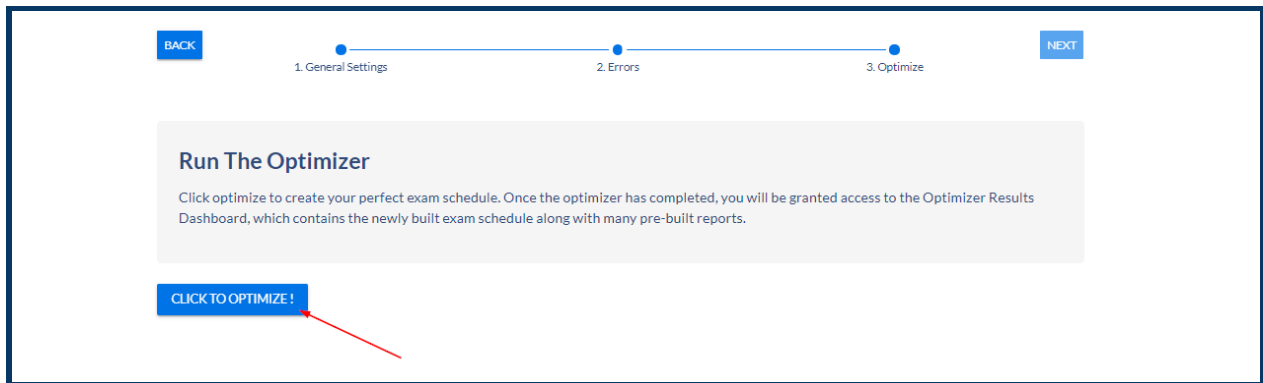**g. Exam Pattern end time is invalid**

This indicates that an exam meeting pattern has an end time before the start time.

h. Exam Pattern: start/end time is required

This indicates that an exam meeting pattern has a missing start or end time property.

Optimize

1. Once all errors have been cleared (if any), the user can now select **'Click to Optimize'**.

*Note: When waiting for the optimizer to generate the exam schedule, the loading time will say 119 min by default, however, please note that this is a generic number and the time varies depending on the amount of departments you are running the optimizer for.

Exam Optimizer Results

Results

Once the Optimizer runs successfully, it will take the user to the *'Exam Optimizer Results'* page. The Dashboard will contain the exam schedule for every section and will allow you to filter these sections based on the results of the optimizer.

Below are the filter options:

Scheduled Successfully - The sections that contain a checkmark are the sections that the optimizer was able to assign an exam schedule.

Scheduled With Issues - The sections that contain a yellow warning are the sections that were assigned an exam time scheduled, however did not have an academic room attached. This may occur if the user sets the Exam Meeting Pattern as *'use the same room as academic room'* but has no room attached to the section.

Not Scheduled - The sections that contain a red warning indicate that the exam meeting could not be scheduled.

Excluded - The sections that contain an outlined blue flag indicate that these sections have been excluded from the optimizer run.

Export

Users are able to download a CSV file of the exam schedule the optimizer was able to provide for the departments selected.

Once the user is satisfied with the schedule, the user can select **'Merge All Results'** to apply the exam schedule to the sections and can be viewed in the *'Section Editor'*.

Note: Once merged any edits must be done manually for a specific section.

Reviewing the Final Schedule

Auditing the Schedule in the Section Editor

After all of the change requests have been voted on, it's a good idea to do one final audit of the schedule.

1. To do this, navigate to the *"Section Editor"* tab on the left sidebar and select 'Department' in order to select the appropriate department. Then, click "**VALIDATE SCHEDULE**" on top of the screen:

2020 Fall Term Accountancy Department

Sections By Course ➕ COURSE | VALIDATE SCHEDULE | SUBMIT SCHEDULE

2. This will display a list of all conflicts that exist in the schedule. Resolve any conflicts in the system, or confirm they are allowed:

Review Schedule Conflicts
As of 06/13/2020 9:32 PM

SECTION RULES   MEETING PATTERN RULES   PREFERENCES

⚠ Relationship Conflict (19)

REL3100: Section CMWA — This section is violating the **Same Time Same Day Same Room relationship** it has with HIS3100 - CMWA and 2 other sections.

Reports

Viewing and Filtering Reports

Coursedog offers a range of out-of-box reports to help analyze data in Class Schedule Planning.

1. To view them, navigate to the reports tab on the left side of the screen:
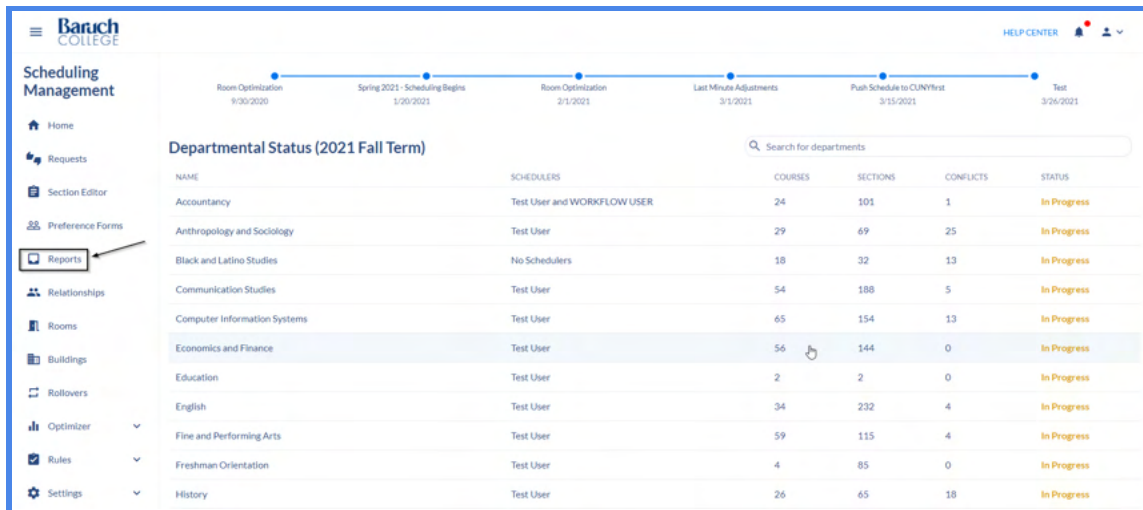
This will take you to a page with a number of available reports that will help you analyze times, departments, space, conflicts and more. In Scheduling Reports, users have the ability to;

> a. Create complex custom filters on all data objects (i.e. filter by individual departments)
> b. Save those filters
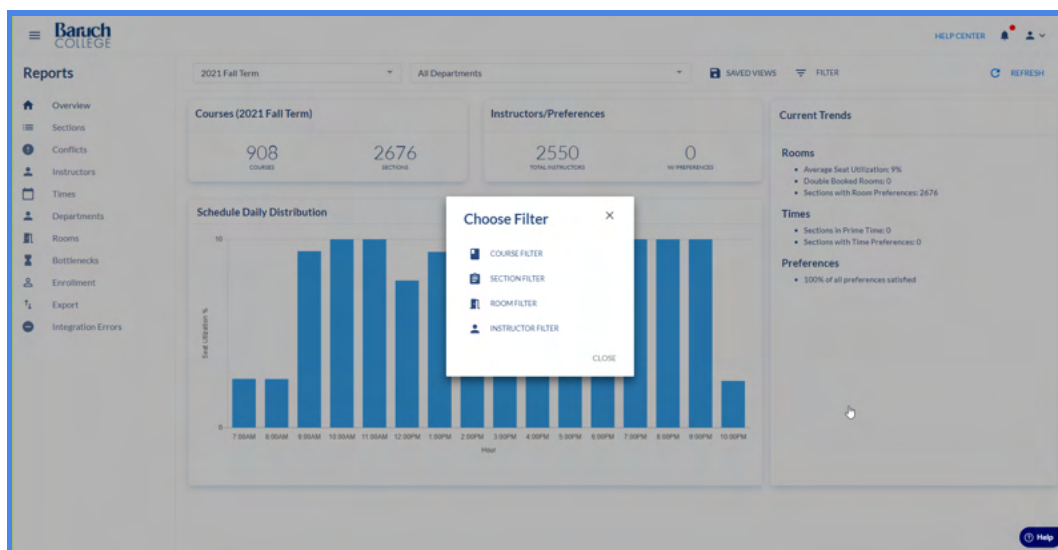
Reports load in 4 different data objects-- courses, sections, rooms, and instructors-- and users can build filters for each of them individually. Simply:

1. Select the desired data object to build a filter for
2. Define the filter using the same 3-part filtering system used unilaterally across the platform (see image below)
3. Click 'Apply the filter'
4. Repeat as necessary for each data object.
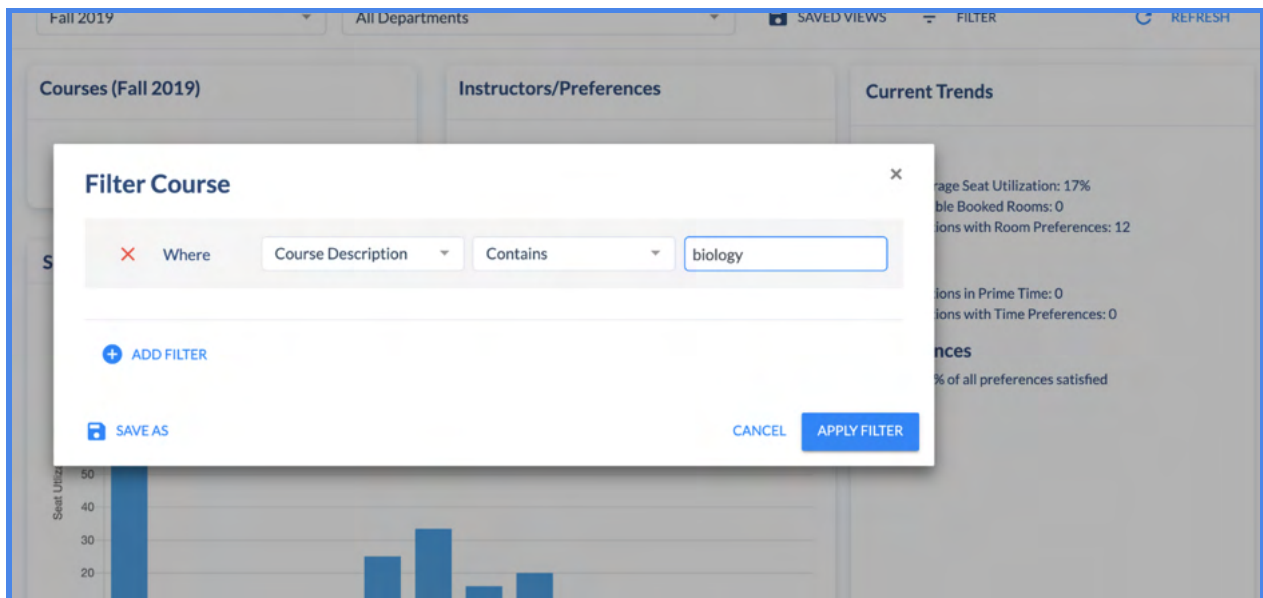
Each filter can be saved so it can be easily accessed later:
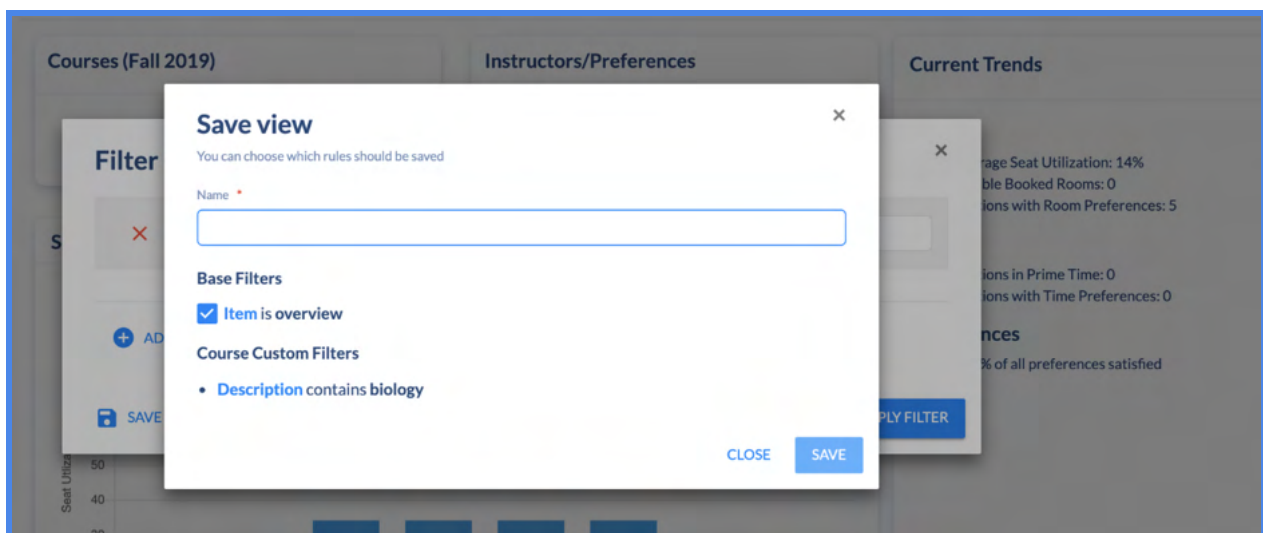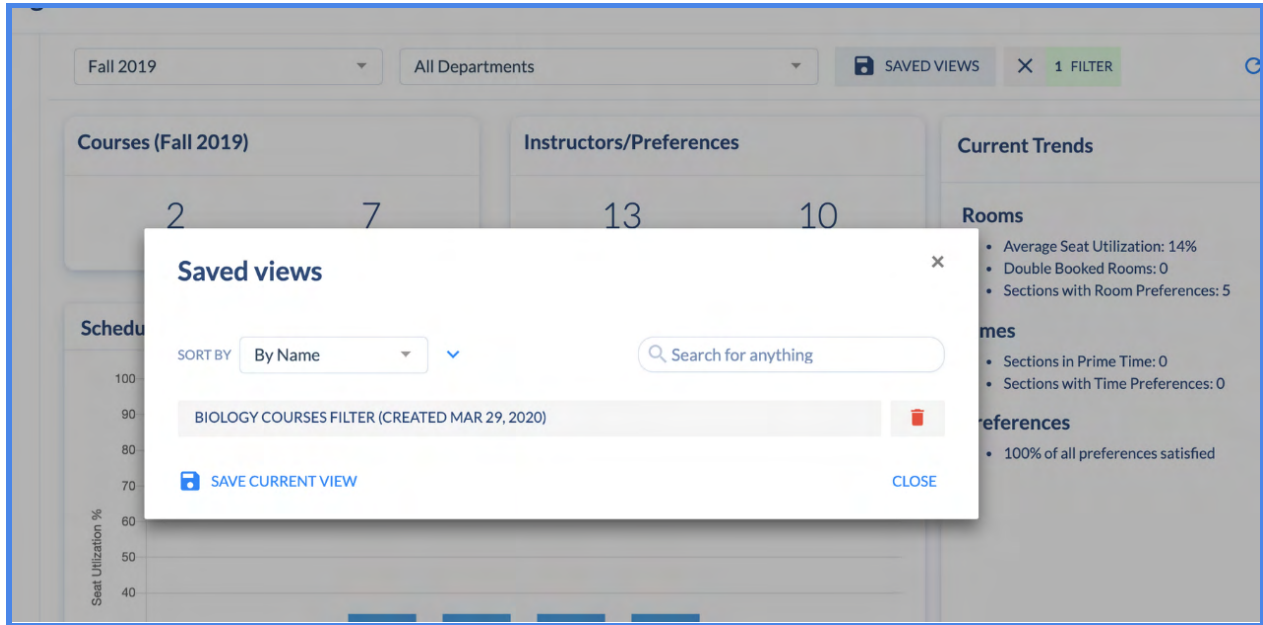
Below is an overview of the different categories of reports available:

- **Overview:** High level view of the number of courses, sections, instructors, and instructor preferences in a given term in addition to the term's daily schedule distribution.

- **Sections:** Review an overview of sections with time and room assignments, section type, preference satisfaction, max enrollment range, sections per course, and preferences.

- **Conflicts:** View all conflicts in the term, and filter by conflict type and view preference satisfaction in the term.

- **Instructors:** View an overview of instructors, instructor assignments, instructor types, average credits, instructor preference satisfaction, instructor availability, and instructors with back to back sections.

- **Times:** View meeting patterns and meeting pattern assignments, schedule hourly distribution, seat utilization by hour, time preference satisfaction, schedule daily distribution, most popular meeting patterns, and meeting pattern usage.

- **Departments:** View number of courses and sections and the status of each department's schedule.

- **Rooms:** View room assignments, room conflicts, usage, seat utilization by hour, day, and room size, most used buildings, average usage by building, average usage by room type, room preference satisfaction, and an overview of rooms.

- **Bottlenecks:** Review a summary of room bottlenecks
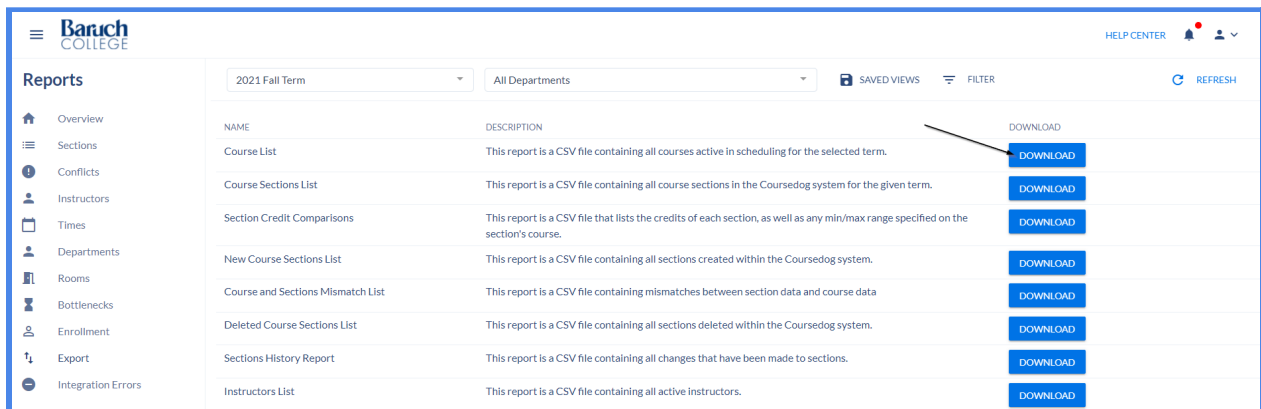
- **Enrollment:** View an enrollment overview, sections by utilization, and an enrollment heatmap

Downloading Reports

1. To download reports select the *"Export"* tab on the left side bar
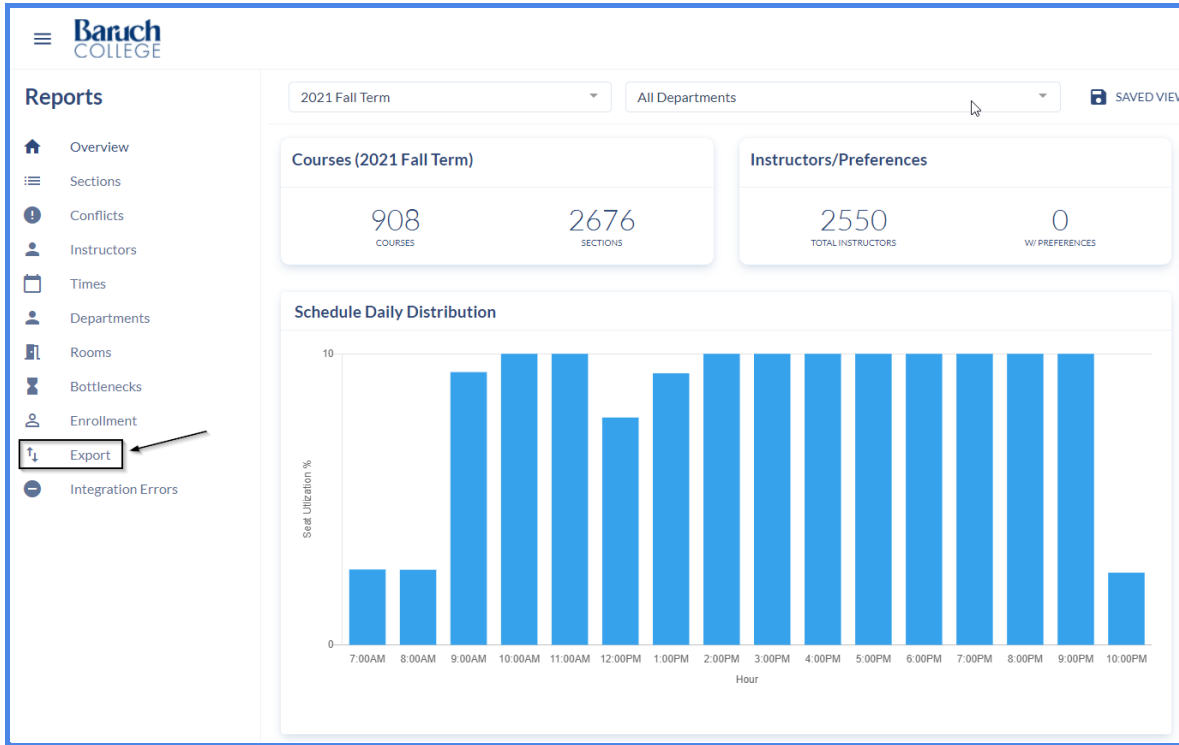
2. Select '*Download'* to download a CSV or XLSX file of desired report

Integration Error Reports

In the reporting dashboard, select the **Integration Errors** and this will display a list of all sections that encountered an error during the last integration. Each row is clickable, so users can open up the section editor directly and view the error that occured:
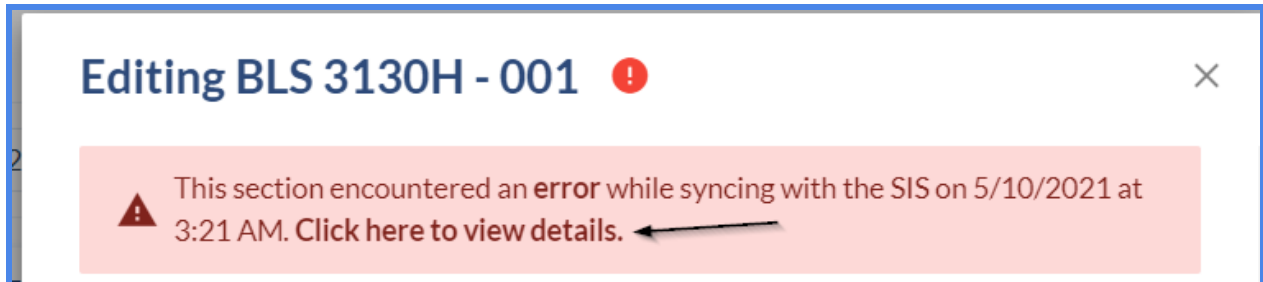
Note: *This page is only visible to users who have the View Section Integration Status permission. In order to resolve these Integration Errors, click here to see the "Common SIS Merge Errors and Resolutions" page on the Coursedog Freshdesk site and select the "**Common Peoplesoft Merge Errors**" pdf document to view the various types of integration errors that would occur in CD from the user.*

Real Time Integration

When real-time integration is turned on, sections will sync with Peoplesoft after a user makes edits and the user selects "Save Section."

Once the sync has begun a user will see a "Syncing with SIS" message at the top of the screen. This usually lasts no longer than a minute (the time to completion depends on Peoplesoft). During the time a section is syncing, users will not be able to make edits to the section to prevent any data collisions while data is sent to Peoplesoft:

Reviewing a Section Change Request

Once Scheduling is finalized (about 95% complete and updated in CUNYfirst), **Department Schedulers** will then be permitted to submit requests for any additional changes to the schedule, including adding additional class sections for a course offered in the upcoming term.

Once a request (editing a class section/adding a new class section) is made, it will go through an approval workflow. The Author (Initiator/Department Scheduler) who had made the request will receive email notifications on the progress of their requests (i.e. Approved, Rejected, Suspended etc.).
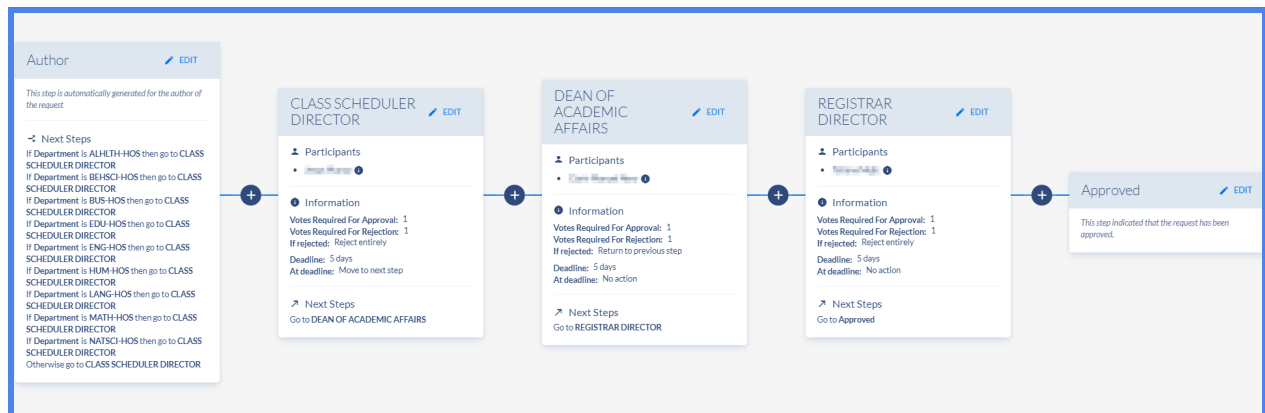

Note: *All approval workflows are based on the business process that the institution utilizes during their Scheduling Cycle. Please consult with your local scheduling office (Registrar, Class Scheduling Office etc..) for more information. Any changes to an approval workflow must be addressed with the Office of University Registrar in consultation with the campus scheduling office to make those changes.*

Handling Change Requests

Once the Author/Initiator submits a request, it will be sent to all participant(s) included in the approval workflow. Workflow participants will receive notifications about the request via email, and as well in their Notifications dashboard in Coursedog.
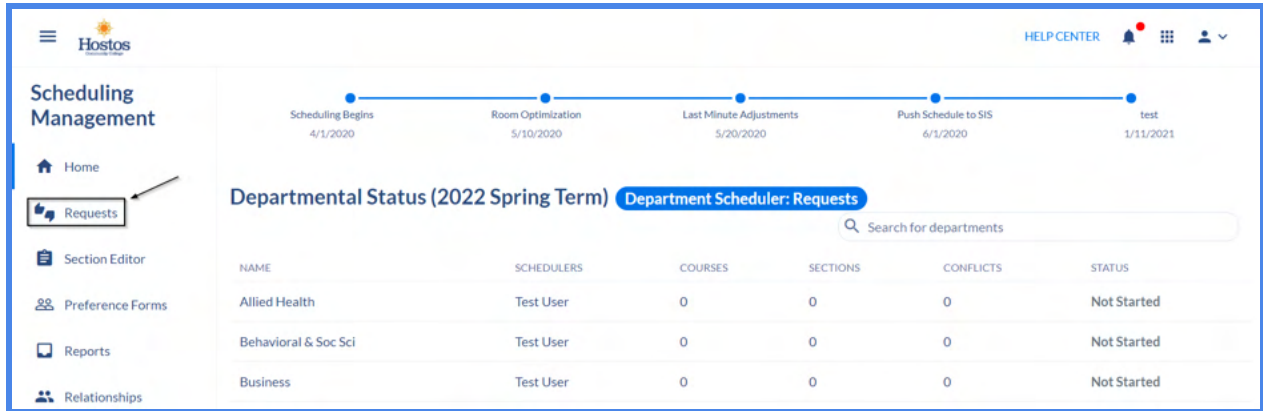
Example from email and Notifications from Coursedog Scheduling Management Tool;

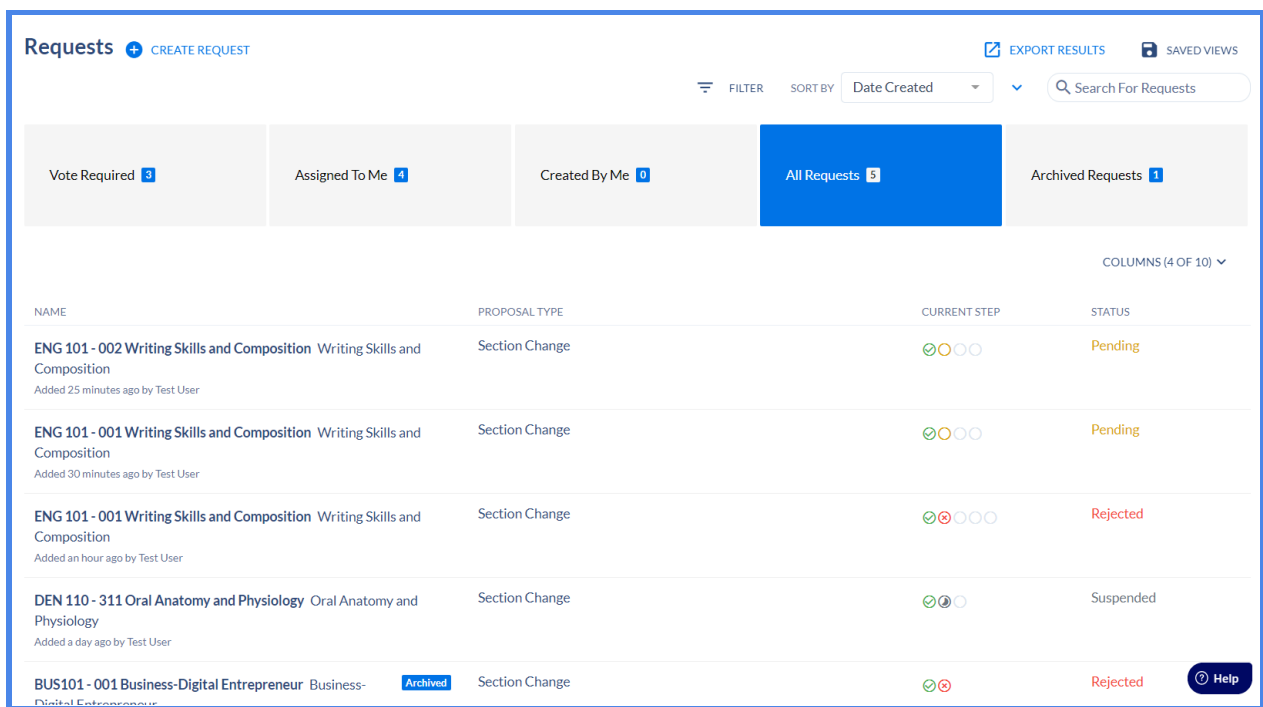*Note: In order to be navigated to the correct request when you select the link you must be logged into the associated account.*
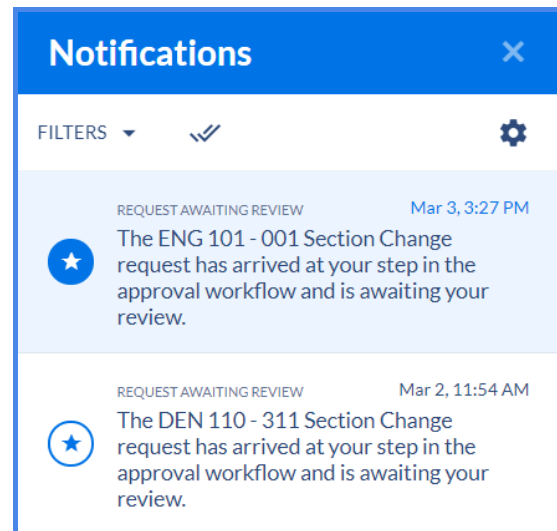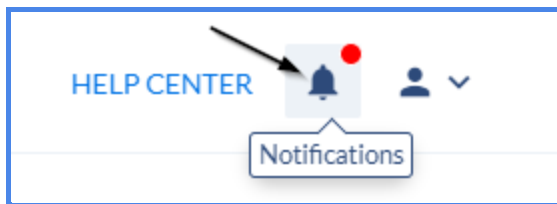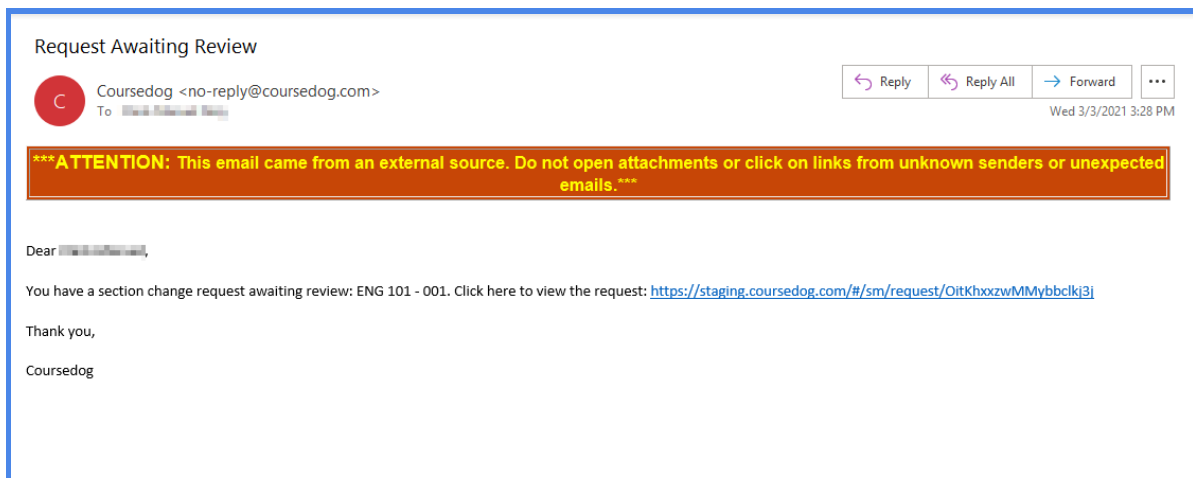
Note: The examples shown below of "Handling Requests" are from a Scheduling Campus Admin view. Click here to visit the Department Scheduler Guide to know how Department Schedulers make requests ("How to make Requests" section).

1. On the Home page go to the Requests located on the left hand side of the screen.

2. Schedule approvers may approve, reject or ask for more information on the requests that are being made directly from the Requests Dashboard.


1) "**All Requests**" - To find all incoming requests
2) **"Vote Required'** - This includes all requests where the user must cast a vote to move the request along the workflow. For all intents and purposes, this is where users should navigate to for their 'action items.'
3) **"Assigned to Me**" - Shows requests that the user did not create where they have already voted, have yet to vote, or where they were intended to vote before someone

else force approved (and the request was therefore entirely approved, therefore no longer requiring their vote). This tab is helpful, amongst other things, for record-keeping purposes, as it shows requests the user has already voted on.

4) '**Created by Me**' - Shows the same items as 'Assigned to Me', but in this case the requests were created by the user themself.
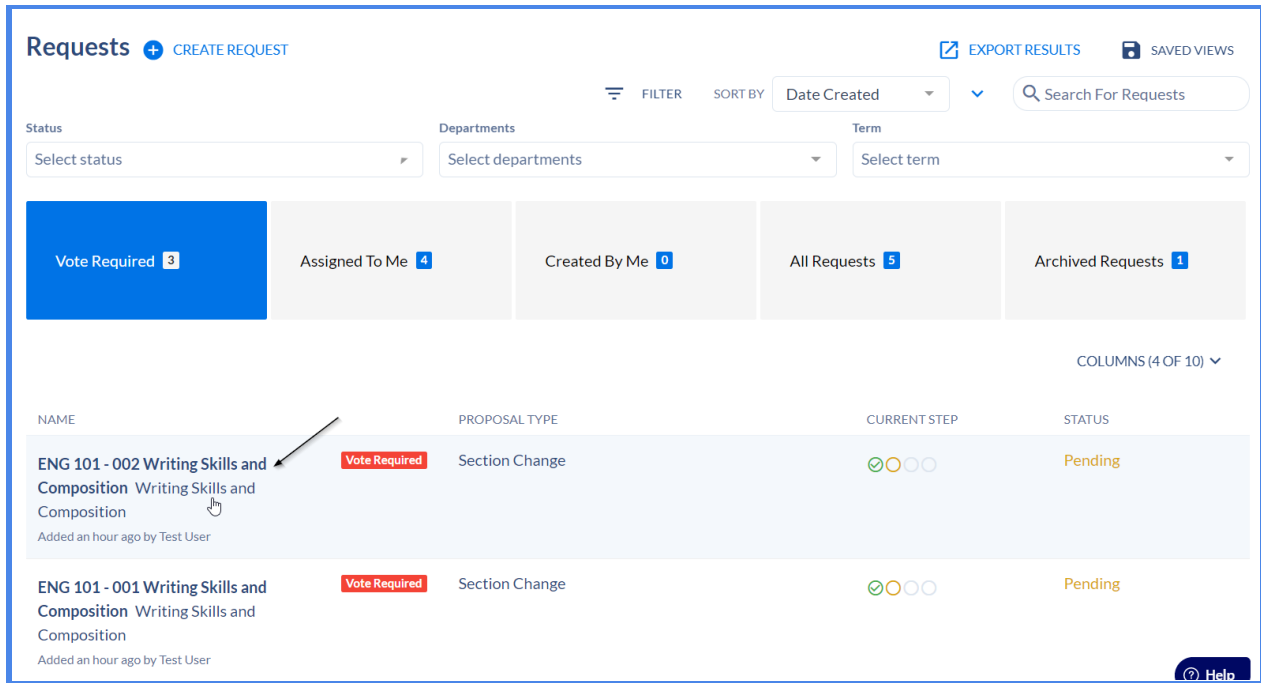
If you go to the right hand side of each request, the status of the request can be shown whether it has been approved, rejected or pending. If you hover over the "Current Step" column, it will show to the user a visual representation of where the request is in the workflow.
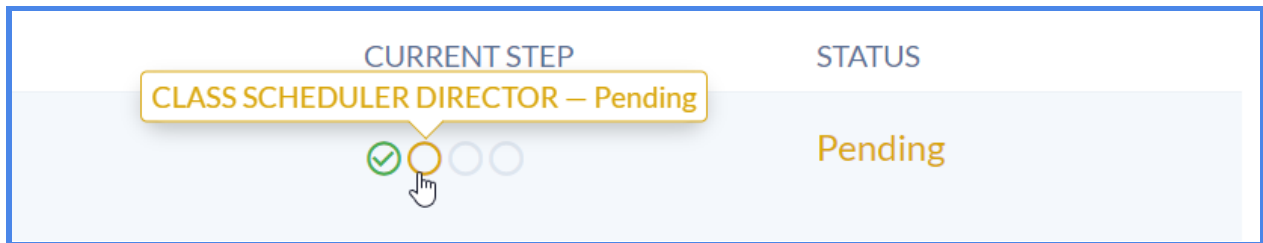
Users can go to the top of the screen and select the "FILTER" button to narrow down the requests by Status, Departments and by Term.
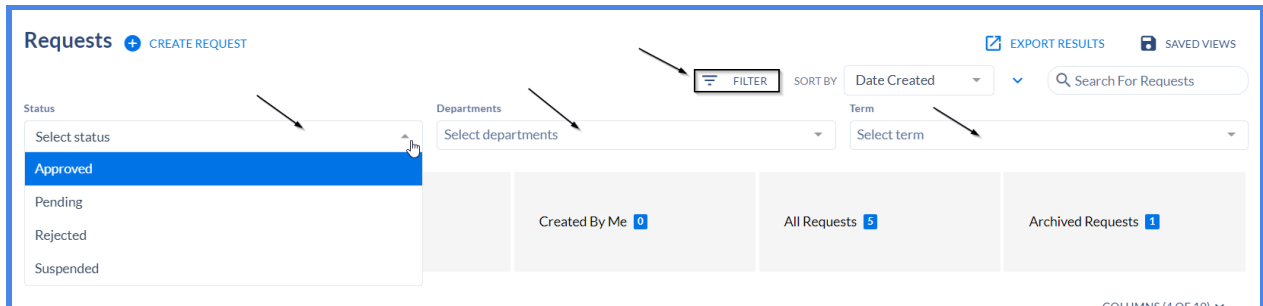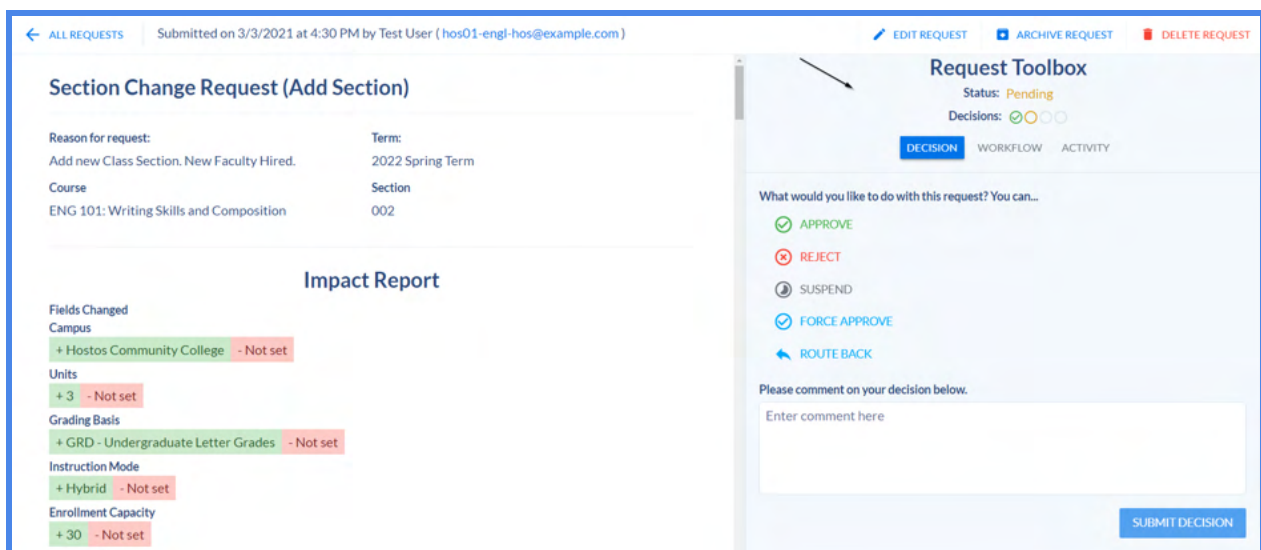
3. Under **"Vote Required"** select the Request that was made by the Author/Initiator (i.e. Department Scheduler).

4. Once you select the request, it will display to the user a summary of what the request was made by the author. Below will reveal the "**Impact Report**" that displays the changes that were made in the class section fields, scroll down to the the "**Existing Class Section**" to view the class section fields from a section editor point of view and to the right of the screen it will show the **"Request Toolbox"**;
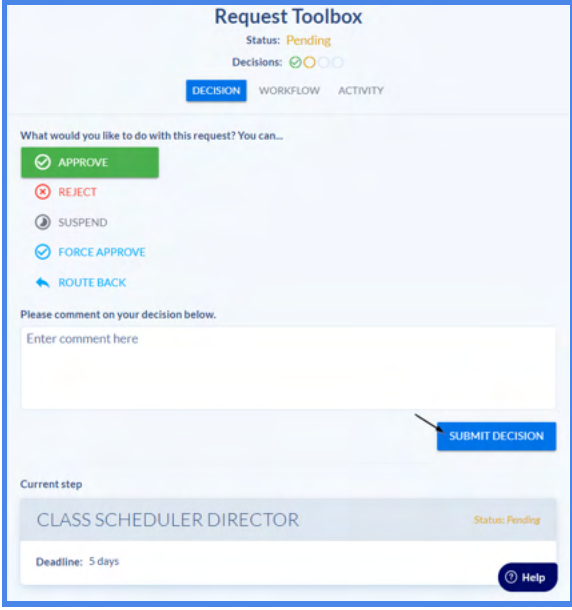
1) **Decision** - Displays to the approver the option to either Approve, Reject, Suspend etc.., the current step where the request has landed and its Status, and the approver may also leave a comment on the decision that was made.
2) **Workflow** - Displays all participants in the approval process
3) **Activity -** Displays the users request being admitted and including the fields that were added/edited. This also includes any comments being made by the user or participants, if typed into the Activity log.

5. Once the approver has made a decision, click on the **"SUBMIT DECISION"** button to move the request(s) to the next step in the workflow.

Note: *The options listed under Decision (Approve, Reject, Suspend, Force Approve, Route back, Edit Request) will vary for each campus as every institution has their own business process to whether one of the approvers in the workflow should either do any of the following other than Approve or Reject.*

Please consult with your local campus and management (Registrar, Class Scheduling Office etc..) for more information. Any changes to an approval workflow must be addressed with CUNY Central OUR to make those changes.

Request Reset Options

If there is a point in time where the requests reaches one of the participants in a particular step of the entire approval workflow and has the option to edit an author's request, the following options could occur depending on the permissions settings of the role and how your approval workflow is built at the institution for scheduling;

Edit Requests Without Updating Workflow	✅ Allow ▾
Edit Requests And Maintain Approvals	✅ Allow ▾

1. If both permissions are set to "off", and a user edits a request, they will see the following message when they save;

Save & Reset Workflow   ✕

When a request is edited, the workflow will be automatically reset and all prior approvals will be disregarded. This request will be sent back to the author for their approval. Please click Save to proceed.

CANCEL   **SAVE**

The message explains that saving the request will reset the workflow and disregard all existing approvals. If the request is edited, the workflow will automatically reset and all prior approvals will be disregarded. The request will be sent back to the author for their approval.

For example, the request is reached at the Registrar Step in the approval workflow, all prior steps were approved by the Class Scheduling Office and then the Dean's Office. The participant at the Registrar step has decided to edit the request and go down to the **"Edit Section Change Request"** section of the page and changed the Days and Times of the class section, once they save the changes and click save on the **"Save & Reset Workflow"** card, the request will go back to the author and the approval workflow will start over again.

2. If one or both permissions are set to "on", the user will have a dropdown menu after they edit a request, allowing them to choose a request reset option;

Resetting the workflow means regenerating the workflow based on the workflow template defined in settings. All logic jumps and dynamic steps will be re-evaluated, and any new steps that result will be injected into the reset workflow.
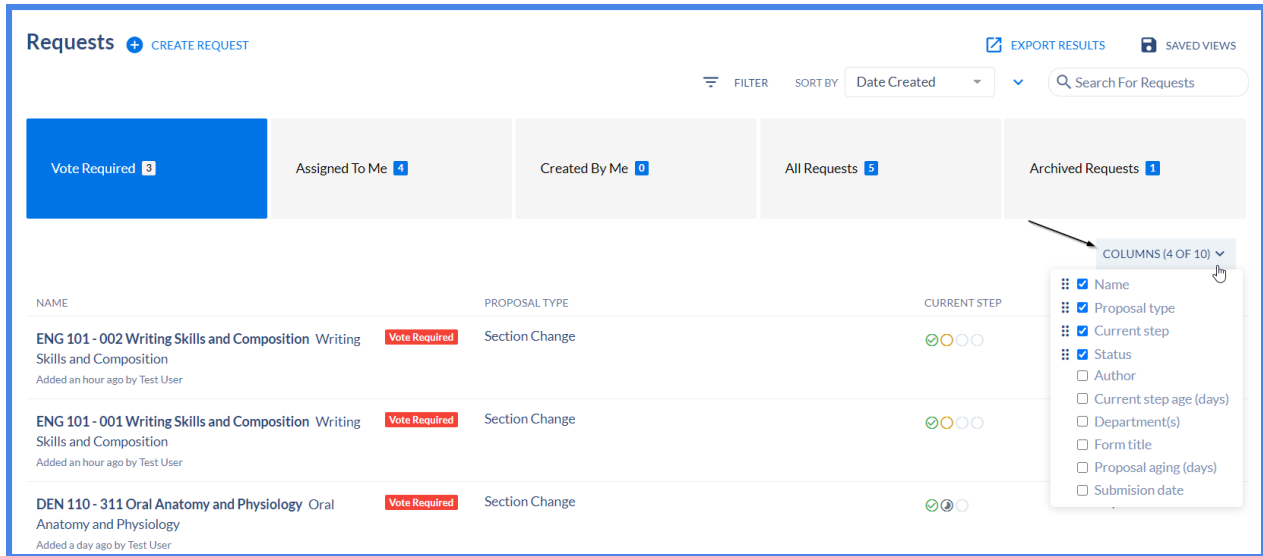
There are the following options for resetting a workflow:

1) **Reset Workflow - All prior approvals will be disregarded**. This is the default logic that will be implemented when a user does not have any of the extra permissions. This will reset the workflow, remove all existing approvals, and send the request back to the author step

2) **Reset Workflow - All Prior approvals will be maintained.** This action will reset the workflow, but keep all existing approvals. If after the workflow resets, no new steps have been added, the workflow should remain at its current step. If any new steps were added to the workflow during the reset process, the workflow will be sent back to the first step that has not been approved.

3) **Do Not Reset Workflow -** This action will allow users to save the request without resetting the workflow.

Note: Please consult with CUNY Central Office, if Reset of Workflow is part of your business process when a participant in the workflow edits a request from an author/initiator (Department Scheduler).

Requests Columns and Saved Views

All Requests pages have a "Columns" component that allows users to configure which columns are displayed, and the order of those columns.
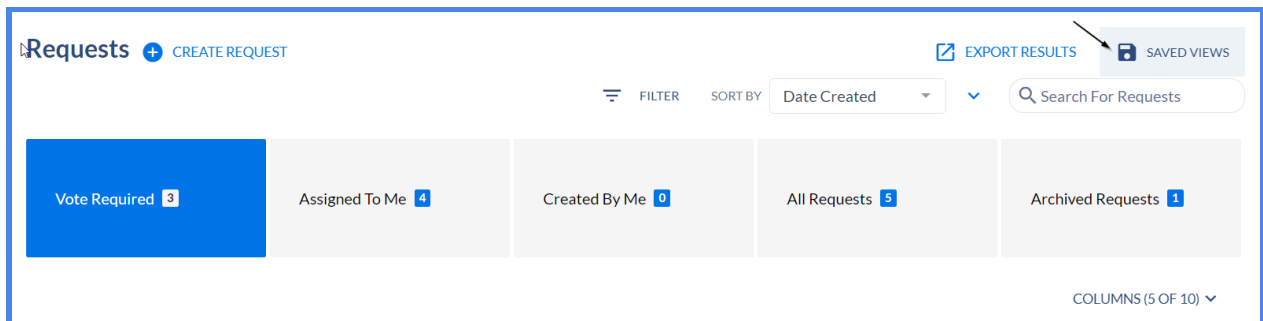

Users can also save the combination of columns and filters into the **"SAVED VIEWS"** button, that can easily be accessed in the top right of the Requests dashboard.

Select the **"SAVE CURRENT VIEW'** button and name the Saved View, afterwards select the **SAVED VIEWS** button again for the user to select the Saved View that was created.

Saved views

You can set your default view in Account Settings

No saved views

💾 SAVE CURRENT VIEW

CLOSE

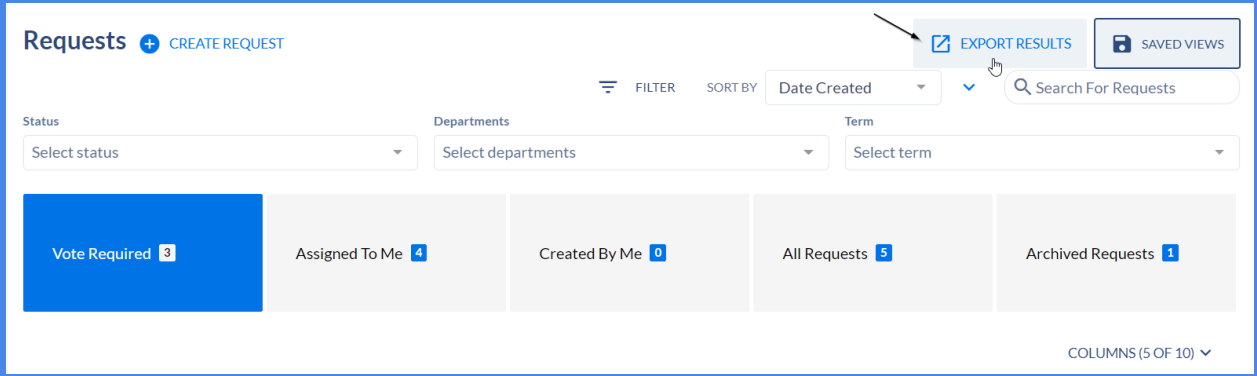

Save view

You can choose which rules should be saved

Name required

General View

Base Filters

☑ **Relation** is **approval-required**

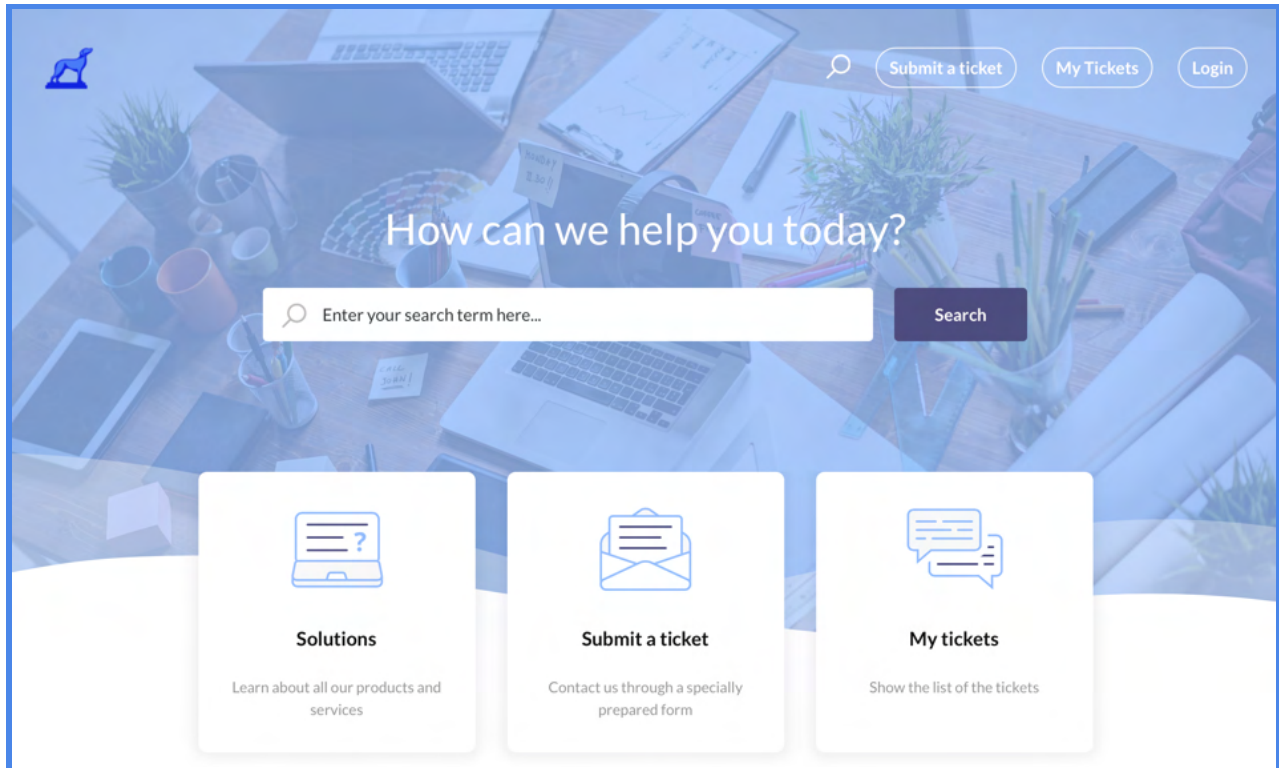☑ **Columns** is **Name, Proposal type, Current step, Status, Author**

CLOSE   **SAVE**

Users can export the request data into a CSV file, which will apply to the filters and columns the user has selected.

Coursedog Support Model

The Coursedog support center is the best way to answer any questions you have about the Coursedog platform through Articles and Support Tickets.


Level 1 - Solution Articles

If any questions arise when using Coursedog, we recommend reviewing the Freshdesk library of solution articles. We have tons of articles about every topic and feature within Coursedog, so it is likely your question is answered in one of the articles. There are two ways to access these articles:
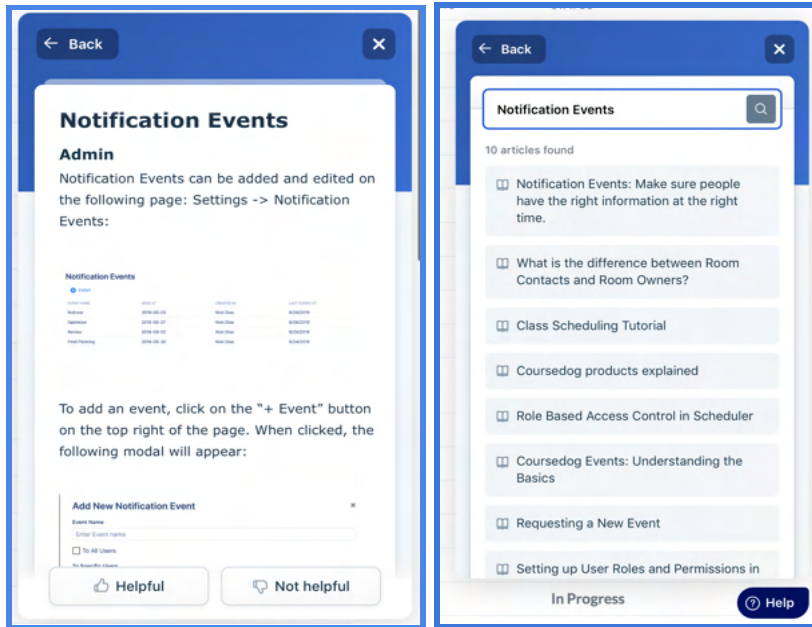
1. **In Coursedog**

   No matter where you are within the platform, there is a help button in the bottom right corner that allows you to quickly access support articles while using Coursedog.
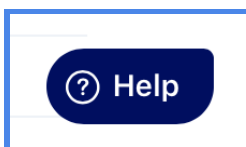
Clicking *'Help'* in the lower right-hand corner will open the help center and allow you to enter the topic or question you are looking to have answered.

From here, you can seamlessly find solutions without ever leaving Coursedog.
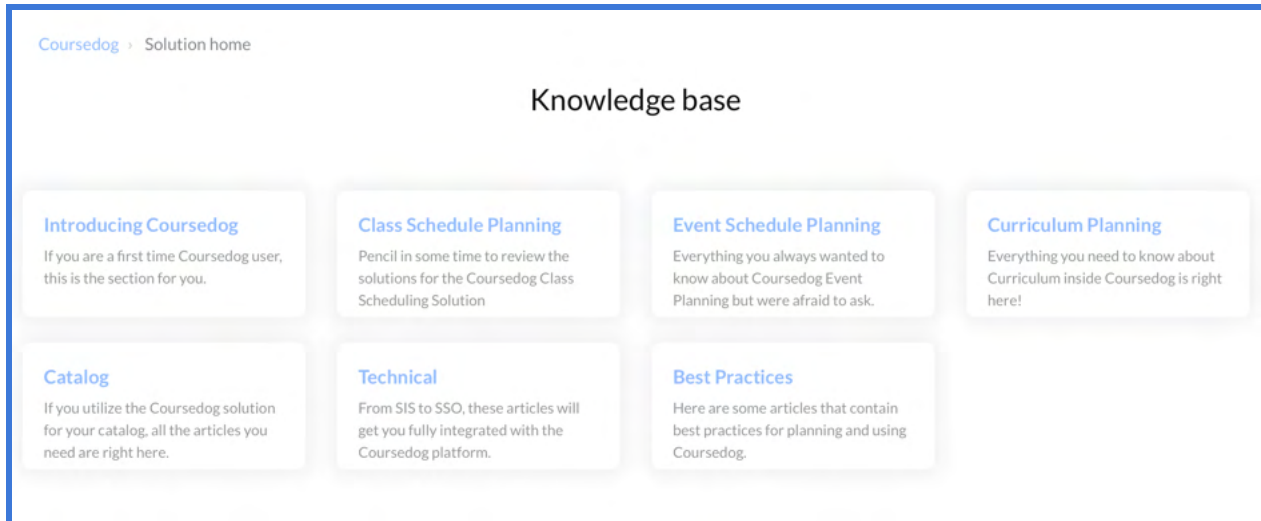

2. **Online Support Center**

If you want to easily navigate the support articles by product and category, you can visit the online support center here, or you can select 'Help Center' in the upper right corner of Coursedog to navigate to Freshdesk:
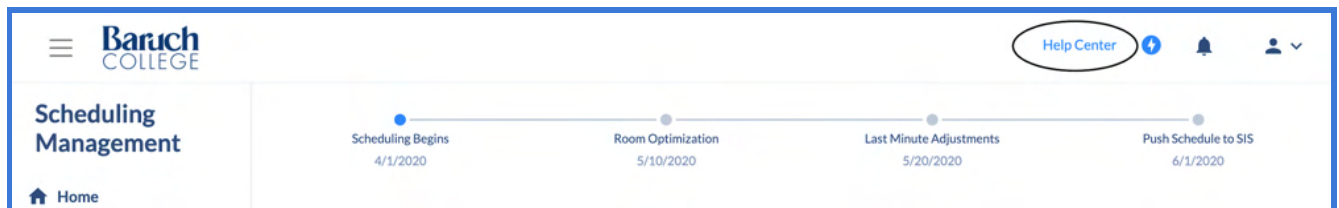
From the Freshdesk homepage you can quickly search for a topic or select the 'Solutions' button to access the Knowledge Base where you can see all available articles:

Level 2 - Submitting Support Tickets

If you run into a question that you cannot resolve with the above resources you can submit a support ticket to the dedicated Coursedog support team through the Freshdesk Help Center Widget in the bottom right corner of Coursedog.

1. To submit a support ticket, select the **'Help'** button.

2. Select 'Contact Us.' A ticket will pop-up pre-populated with your name and your CUNY email address. Do not change either of these fields.
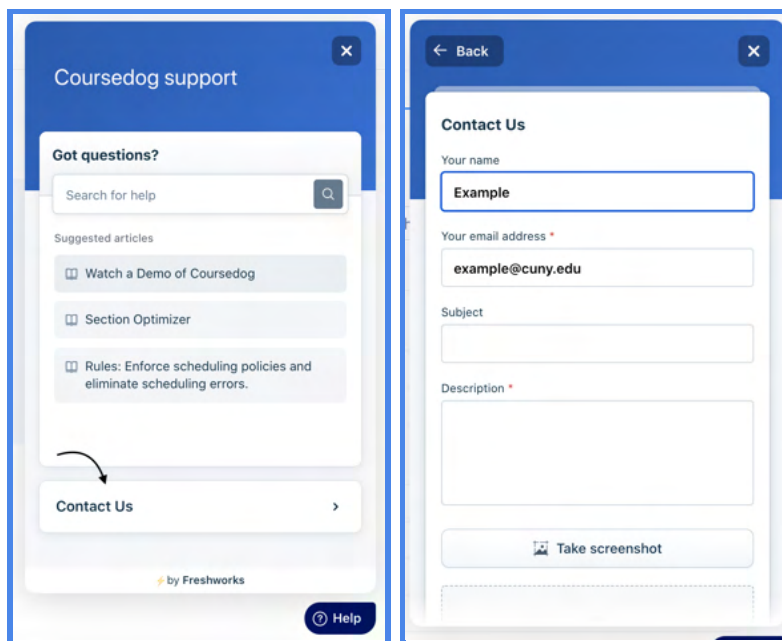
Add a descriptive subject, and a thorough description of the issue. Please include images if relevant, and as much detail as possible. The support team will be notified of the ticket and will work swiftly to respond. The system will recognize your user account so that the Coursedog support team will have insight into the product you are using and the problem that is arising within your environment.

Once the support team responds to your inquiry you will receive an email with the response. If you need additional clarification, or if the support team has any follow-up questions, the conversation can be continued over email.

Note: Any Scheduling Department Schedulers or Scheduling Faculty Workload Coordinators who have any questions or issues will contact the Scheduling Campus Admin who are the Primary Contact. Scheduling Campus Admin who are Primary Contact are listed in their Functional Guides.

Upon submission the CUNY Central Office Support Team is also notified of the CRM.

Level 3 - CUNY Support

If the Coursedog team is not able to resolve the issue or requires assistance from CUNY OUR/CIS, OUR will open a CRM to triage the CUNYfirst/Coursedog integration issue and resolve the Freshdesk ticket.

Note: Campus users who are live using the Scheduling Management Tool, should always use Freshdesk to open tickets and report issues that are in Production.

Appendix

Daily Digest

In Coursedog, various events trigger email notifications, including notifications for requests awaiting the user's review. Users dealing with large volumes of requests may wish to receive a daily email digest rather than immediate notifications in order to minimize the number of emails received.

In Account settings, users can specify for each product, the desired request workflow notification setting. Navigate to Account Settings by clicking on the person icon on the top right of the application and select 'Account Settings.' Within Account Settings, specify whether you would like to receive immediate email notifications for Request notifications or a daily digest. Note that these settings only apply to email notifications that notify users that a request has reached their step in the workflow.

Helpful Tip: If you are a workflow participant, set your notification preferences to 'Daily Digest' to reduce notifications in your email inbox.