

Astra Schedule Help (8.0)

Academic Scheduling Preferences Overview

Academic room scheduling preferences in Astra Schedule allow you to specify a preference for (or require or exclude) certain Room Types, Features, Regions, Buildings or even specific Rooms based on the subject, course, meeting type, instructor, and/or campus of the course section in question.

Time scheduling preferences, used by Timetabling, allow you to specify a preference for one or more meeting patterns and add Delivery Method to the section matching criteria.

Each individual preference can have a weight applied from 1-10, be required, or be excluded. In addition, Feature preferences can have a quantity specified, if applicable. Scheduling requirements, preferences and their respective weights impact room and time suitability and score for room optimization, timetabling, as well as ad hoc room and time assignment.

Term-specific, section-level scheduling preferences can be edited as desired, but section records will otherwise automatically have scheduling preferences applied from rules defined in [Preference Sets](#).

[Preference rules](#) within a set contain both rule matching attributes (campus, meeting type, subject, course, instructor) and the rule preferences (room type, feature, region, building, room, OR meeting pattern groups/meeting patterns). The order in which the rules are applied is determined by the order of the rules within the preference set.

On a rule-by-rule basis, preferences of a specific type (i.e. Room Type) can be configured to "override" any other preference rules encountered during the application of preferences. If a section matches the rule, any preferences it already has for that type will be removed and replaced with the new ones. This feature allows certain course sections to have preferences applied that are different than the broader rule that may have been applied earlier in the process.

Finally, specific preferences can be "blocked" for certain sections. For example, a broad preference may be applied early in the rule set that grants a preference to many sections. If there is a specific section offering combination that is an exception to the rule, then a rule may be created to block the application of that preference for the individual. This feature allows the application of broad preferences with exceptions.

The system will evaluate each rule defined in the preference set, in the order configured, and apply preferences to sections with attributes that match the defined rule. By default, preferences are combined for sections that match multiple rules. However, if a rule is encountered that is an "override" then it will eliminate other preferences that were previously applied for sections that match the override rule. Likewise, if a rule is encountered with a "block" applied, then the section in question will not receive the applicable preference.

A tool is provided within the preference set to [test](#) the application of preferences for a hypothetical section record on-the-fly during configuration.

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[Create a Preference Set](#)

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Preference Sets

A preference set is a group of saved scheduling preferences that may be reused depending on your scheduling process, the term, or your scheduling goals. For example, if you want your Summer term sections scheduled into specific areas on campus to minimize cooling expenses you could create a preference set called "Summer Preferences" and make room preference selections that are appropriate to this goal. Preference sets can also be used to support experimentation or iterative scheduling during room assignment optimization. You might make one pass at the scheduling process using a preference set with very restrictive preferences, then schedule the remaining sections into rooms with more relaxed preferences. Once preference sets are established, any of them can be used during optimization to change the way sections are scheduled.

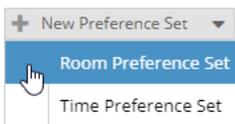


NOTE: A default room preference set is associated with every academic term. The room optimizer and individual section records use preferences from the term's default set. The preference set may be changed when configuring the optimizer or timetabling. Section-level preferences may be edited individually as needed.

Create a Preference Set

To create a new preference set, perform the following:

1. Select Scheduling Preferences from the Academics tab.
2. Click **New Preference Set** at the top of the list to create a new set of scheduling preferences.
3. Select either the Room or Time Preference Set option, as applicable.



4. Specify a name and optionally add a description to identify the purpose of this set of preferences.



NOTE: A time preference set will appear very similar to a room preference set but will include Delivery Method as an attribute and Meeting Pattern Groups and Meeting Patterns as preferences.

5. Use the item list and preference application tools described in this topic to configure scheduling preferences for the set.
6. Click **Save** to add the preference set to the system, or continue and add preference rules to the set.

Once one or more preference sets is established, these will appear on the Academic Scheduling Preferences list page. As the list grows, you may sort on the preference set name or perform a keyword search to find a specific entry. Preference sets may be viewed, edited or deleted using the icons next to each entry.

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[Configure Preference Rules](#)

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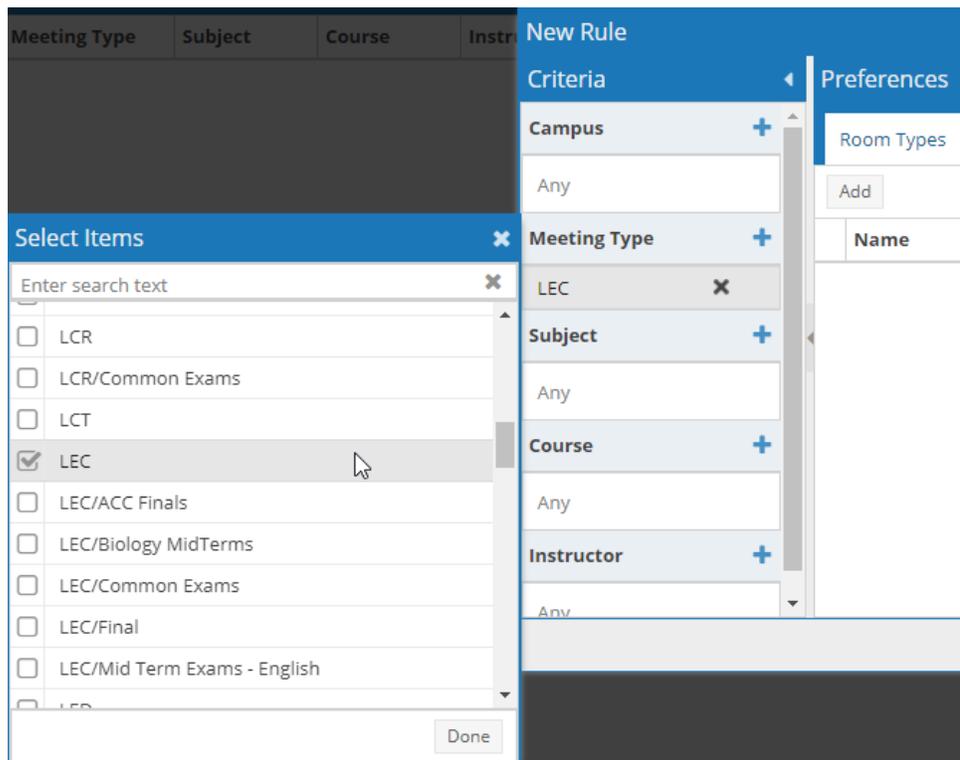
Add a Preference Rule

Individual preferences are defined within a preference set by creating rules. Preference rules include the rule matching criteria and the resulting preference that will be applied. In other words, the rule specifies "if THIS is true, then apply THESE preferences". The matching criteria within a single rule can contain a combination of one or more course section attributes (Campus, Meeting Type, Subject, Course, Instructor) providing fine control for the application of preferences.

Add a Preference Rule

To add a new rule to a preference set, perform the following:

1. Click the Scheduling Preferences option on the Academics tab.
2. Edit or create a preference set.
3. Click **Add Rule**.
4. In the Criteria panel, click the + button for the desired option to view a list of possible selections. (Note that Time Preferences will include Delivery Method in addition to criteria shown)



5. Check the box next to any item to which you'd like the preference applied.

Items can be deleted from the rule by removing the check or by clicking the X next to the item in the criteria panel.

6. Select a preference type tab, and click **Add**. (Note that Time Preferences will include only Meeting Pattern Group and Meeting Pattern options)

The screenshot shows the 'New Rule' dialog box with the 'Preferences' tab selected. Under the 'Room Types' sub-tab, there is an 'Add' button and an 'Override' checkbox. A table is displayed with the following columns: Name, Weight, and Mode. The table contains one row with a red 'X' in the Name column, a dropdown menu showing 'select...' (highlighted in blue), a weight of 5, and a mode of 'Normal'. The dropdown menu is open, showing a list of room types: Lab - Electron Micro, Lab - HLPE Restricted, Lab - Photography, Lab - Physical Science, Lecture (highlighted in blue), Lobby, Meeting-Accessibility Services, and Off-Campus Site. At the bottom of the dialog, there are 'OK' and 'Cancel' buttons, and a pagination control showing 'Page 1 of 1'.

7. Use the drop-down menus to select the desired preference item, weight, and mode.

Mode options include the following:

- Normal

The default mode. Preferences impact room score, and therefore room selection, with no other special consideration.

- Required

If this preference is inherited, it **MUST** be met. If it is not possible to meet a required preference, then no room will be scheduled.

- Exclude

This preference must **NOT** be met. Anything else may be considered.

- Blocked

The inheritance of this specific preference item must be blocked if applied from another rule - even if that preference is "required".



NOTE: If multiple items are flagged as Required for Room Type, Region, Building, or Room (or time) preferences, then any one of the items will fulfill the requirement, but

ONLY those items flagged as required will be considered. If multiple items are flagged as Required for Feature preferences, then ALL of the flagged items are required, but other items are considered as well, impacting the room score.

8. Optionally, place a check in the box next to "Override" to have the current preference type replace any preferences previously applied whenever a section matches the rule.
9. Repeat the process to add additional preferences to any of the preference type tabs.
10. Click **OK** to save the rule and add it to the [rule list](#).

Next...

[Review the Rule Grid](#)

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Understanding the Preference Rule List

As rules are created they are added to the rule list within the preference set. The system evaluates and applies all of the rules within a set in the order in which the rules appear. Preference rules can be created from very broad (LEC courses require a CLASSROOM) to very specific (these 10 courses when taught on the WEST campus by this INSTRUCTOR must have that FEATURE). The order of the rules within the set can be edited as desired.

To help simplify configuration, it is recommended that the rules be applied from the most general to the most specific. Using this method, rules can be created that will apply some preference to most sections using an attribute that will match large numbers of sections. More specific rules can be created and applied later in the preference set that will only match those sections that have more specific needs. The preferences applied later can either add to the more general preferences or replace them as required. For example, a rule may be created early in the set that requires a CLASSROOM for all sections with the meeting type of LEC. This will ensure that all lecture section receive a preference in one rule. Specific exceptions to the rule, or other sections that will require preferences in addition to this, can be applied later in the sequence.

The preference rule list itself displays the following information:

- The order in which rules will be applied.
- The matching criteria of each rule.
- The preferences that will be applied if the rule is matched.
- Visual queues for any preferences that are overrides or blocks, or are required or excluded.

The screenshot shows the 'Preference Set' configuration interface. At the top, there are navigation tabs: Home, Dashboards, Calendars, Analytics, Academics, Events, Reporting, and Settings. Below these are buttons for 'Save', 'Save and Close', 'Cancel', and '+ Add Rule'. The 'Preference Set' section has tabs for 'Details' and 'Tester'. The '*Name:' field is 'Fall Scheduling Preferences' and the 'Description:' field is 'Enter description'. Below this is the 'Preference Rules' table.

			Campus	Meeting Type	Subject	Course	Instructor	Room Type	Feature	Region	Building	Room
1	↕	↕	Any	LEC	Any	Any	Any	Lecture				
2	↕	↕	Any	LAB	BIO	Any	Any	Lab - Biology				Fine Arts Bldg 001 -
3	↕	↕	Any	Any	Any	Studio Art Introduction	Any					
4	↕	↕	Any	Any	Any	Ecology and the Environment	Any		Microscopes			
5	↕	↕	Downtown	Any	Any	Ecology and the Environment	Any		Microscopes			
6	↕	↕	Any	Any	EDU	Any	Any					
7	⊖	↕	Any	Any	Any	Business Law II	Any		Black Board, Carpeted, Ceiling Mount Easels, Microphone, Podium		17 Fine Arts Bldg	



NOTE: A time preference set will appear very similar to a room preference set but will include Delivery Method as an attribute and Meeting Pattern Groups and Meeting Patterns as preferences.

Preference rules that include more preferences than can be reasonably displayed in a single row in the list will include an expand/collapse button on the row. Use this option to view the entire rule in the list, as shown above.

Finally, to edit the order of the preference rules in the set, either use the up/down arrow buttons on the row, or simply click and drag the rule to another position.

See "[Testing Preferences](#)" to see how your preferences are being applied.