Schedule25 Optimizer Cycle

Note: Academic Scheduling Focus

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The Schedule25 Optimizer is primarily designed to optimally assign classrooms to unassigned sections in a given academic term. You can use it for other purposes (such as assigning locations to workshops that are part of a large conference) but these articles focus on academic scheduling and terminology.

Ac								
	cepted Assignmen	ts: 1243						
U	Inassign 0 Crea	Create Preference						
С	heck all Uncheck	k all Check High	lighted	Uncheck Highlighted				
ñ	Event	Meeting Pattern	Headcount	Organization	Location	Сар	Util	
	ACCT 210 07 24159 2	TR 0800-0940 01/06	30	ACCT	BAQ 214	40	75%	
	ACCT 210 08 24160 2			ACCT	BAQ 212	40	75%	
_	ACCT 210 09 24161 20.			ACCT	BAQ 210	40	75%	
	ACCT 210 10 24162 2		30	ACCT	BAQ 210	40	75%	
	ACCT 210 11 24163 20	TR 0955-1135 01/06	30	ACCT	BAQ 214	40	75%	
	ACCT 210 12 24164 2	TR 0955-1135 01/06	30	ACCT	BAQ 206	40	75%	
	ACCT 210 13 24165 20.	. TR 1330-1510 01/06	30	ACCT	BAQ 212	40	75%	
	ACCT 210 14 24166 2	TR 1330-1510 01/06	30	ACCT	BAQ 208	40	75%	
	ACCT 210 15 24167 20	TR 1330-1510 01/06	30	ACCT	BAQ 210	40	75%	
	ACCT 210 16 24168 2	TR 1330-1510 01/06	30	ACCT	BAQ 214	40	75%	
	ACCT 210 17 24169 20	. TR 1525-1700 01/06	30	ACCT	BAQ 212	40	75%	
	ACCT 210 18 24170 20	. TR 1525-1700 01/06	30	ACCT	BAQ 214	40	75%	
	ACCT 210 19 24171 20	TR 1525-1700 01/06	30	ACCT	BAQ 210	40	75%	
	ACCT 210 20 24172 2	W 1730-2115 01/05	30	ACCT	BAQ 214	40	75%	
	ACCT 770 A1 24173 20	. MW 1200-1330 01/05	35	ACCT	BAQ 214	40	87.50%	
	ACCT 775 A1 24174 20	. TR 1300-1430 01/06	35	ACCT	BAQ 206	40	87.50%	
	ACCT 760 A1 24175 20.			ACCT	BAQ 212	40	87.50%	
	ACCT 601 25 24176 2		35	ACCT	BAQ 210	40	87.50%	
	ACCT 601 33 24177 2		35	ACCT	BAQ 208	40	87.50%	
	ACCT 605 33 24178 2		35	ACCT	BAQ 210	40	87.50%	
	ACCT 710 29 24179 20		35	ACCT	BAQ 208	40	87.50%	
	ACCT 601 F1 24180 2	MW 1330-1500 01/05	35	ACCT	BAQ 212	40	87.50%	

When Should the Schedule25 Optimizer Be Run?

Schedule25 should be run:

- After you have imported your section information from your SIS and corrected any import errors.
- After you have manually made preassignments in your SIS. Preassignments are strictly honored during

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Schedule25 processing.

• After you have performed the optional step of binding back-to-back sections. This step ensures that Schedule25 will try to place consecutive sections with the same instructor in the same location.

What Input Does the Schedule25 Optimizer Require?

Edit a Schedule25® Optimizer Run

Edit the details of your run below. If you change any settings in the Prepare Step Options area, you will need to prepare the run again before they take effect. For more help and information, review the (?)Schedule25 Optimizer User Guide.

Scheduler Run Name									
Winter/Spring 2022									
Prepare Step Options									
Location Search:	Optimizer Locations								
Event Search:	Academic V								
Preassignments:	Keep 💿 Ignore 🗌 Mark as Preferred								
Use Head Count:	Expected Registered								
Use Capacity:	Default Layout Max								
First Date:	01/01/2022								
Last Date:	04/23/2022								
Earliest Start Time:	07:00 AM ()								
Latest Finish Time:	10:00 PM ()								
Ignore Blackouts And Closed Hours									
Optimization Step Options									
Enrollment Adjuster:	1								
Default Enrollment:	30								
Default Minimum Fill Ratio:	0.1								
Extra Finish Minutes:	5								
Location Effective Dating:	None V								
Optimize Results For:	 Best utilization (default) Better placement (lower utilization) Best placement (lower utilization / partition preference) 								
Sum Cross-listed Enrollments:									

Save

Every Schedule25 run requires that you use a saved event search and a saved location search, <u>created in advance</u>. You can use the same searches in multiple runs.

The events (course sections) in the event search must have the following data:

- Correct date/time imported from your SIS.
- Headcount data imported from your SIS. (If a section has no headcount, Schedule25 will use the value specified in the Default Enrollment setting.)

The events (course sections) in the event search may have this optional data:

• Preferences for individual locations or location features. (Feature preferences will be treated as hard requirements during Schedule25 processing.)

The locations in the location search must have the following data:

- A single associated campus partition.
- A defined maximum capacity, along with the capacity of the default layout (if any).

The locations in the location search may have this optional data:

- A minimum fill ratio, indicating how well the location should be utilized.
- If the events have location feature preferences, the corresponding <u>location features</u> associated with the locations.

If you have created blackouts on your locations, Schedule25 will respect them and not schedule sections into those locations during those times (even if some users have overridden permissions).

In addition, the organizations associated with the events in your event search (your academic departments) must have their partition preferences specified on their organization records .

What Does the Schedule25 Optimizer Do With the Data Provided?

The Schedule25 Optimizer algorithm attempts to place all the classes that are included in its event input into appropriate locations. As it does this, it balances three priorities:

- Placement. The algorithm will place as many sections as possible.
- Optimization. The algorithm will place sections so that each location is being used to its optimal capacity.
- **Departmental Preferences.** The algorithm will ensure that each department's sections are placed in locations preferred by that department.

Depending on how you prepare your data and customize the details for a Schedule25 run, you can put more weight on any of these three priorities-however, doing so will necessarily make the other two less effective. The goal of a successful Schedule25 run is to find the best compromise and balance among these competing priorities. The placement results of a run are not final until you accept them, so you can experiment with changing settings until you get the results you desire.

What Won't the Schedule25 Optimizer Do?

Basically, the Schedule25 algorithm is just an automated way to make a lot of location assignment decisions very quickly and efficiently. It won't do anything you couldn't do manually using 25Live, if you had enough time and coffee.

Schedule25 won't change any data associated with a section, except the location assignment. For example, it won't change a section's meeting patterns to find the perfect time slot, or reschedule a section to meet on Monday/Wednesday instead of Tuesday/Thursday. You can make minor alterations to how Schedule25 performs its calculations by using processing settings like Extra Finish Minutes or the Enrollment Adjuster, but doing this doesn't alter the section data.

Schedule25 won't schedule anything you don't want it to. By <u>creating the searches</u> that are the input to each Schedule25 run, you control which sections you want placed and the locations the sections can be placed in. If you don't want to assign locations to certain sections or you don't want to make certain locations available for assignment, you just exclude them from the searches. Once a Schedule25 run is complete, it presents you with a list of suggested location assignments for the sections. You are free to accept some or all of them, and then either manually place the remainder using 25Live or perform further optimization on the unassigned sections using Schedule25.

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Schedule25 won't alter any existing scheduling data. It won't remove events or sections that have already been assigned to classrooms.