PowerSchool

PowerSchool SIS PowerScheduler: Prepare to Build

PowerSchool Student Information System

CUSTOMER EDUCATION

Contents

PowerScheduler: Prepare to Build – Step A

Managing the scheduling process for your school takes a lot of time, effort, and the coordination of multiple factors. The scheduling engine included with PowerSchool SIS, PowerScheduler, helps make the process more streamlined and successful. Before getting started on next year's schedule, first decide whether you are going to build a new master schedule or copy a master schedule from a previous school year.

The "PowerSchool SIS PowerScheduler: Prepare to Build" course is designed for schools that will build a new master schedule from scratch and load students into the new schedule. The "PowerSchool SIS PowerScheduler: Load Process" course is designed for schools that will copy a previous master schedule, make manual changes for the new year, then load students into that schedule.

The choice is yours—some schools choose to build a new master schedule every year, while other schools copy the same master schedule each year and load students into it (unless they are making major changes to their master schedules). In a "load only," you make the master schedule changes manually. In a "build and load," the system uses an algorithm to help you determine how many sections are required and how to organize them, based on student scheduling requests.

Use this Prepare to Build course to complete each step in the building process. To prepare to build your master schedule, you will:

- Create a build scenario (the format of your master schedule) that describes next year's periods, day cycles, years, and terms
- Define scheduling parameters, including departments, facilities, section types, and teacher teams
- Define scheduling resources, including courses, rooms, students, and teachers

The Prepare to Build Process

While preparing to build your schedule, you will use two parts of PowerSchool SIS—the active, or "live," side and the scheduling side. You will perform most of the setup on what is known as the PowerScheduler (or scheduling) side of PowerSchool SIS. Additionally, you will work back and forth between PowerScheduler and the regular, live side of PowerSchool SIS.

Before you begin the Prepare to Build process in PowerScheduler, you'll need to complete a few steps on the live side of PowerSchool SIS. Complete the following two steps on the live side of PowerSchool SIS before performing Step A: Auto. Scheduler Setup.

- Make sure you have access to PowerScheduler on the Start Page, under Applications

  If the PowerScheduler link does not appear on the Start Page, you may not have access. Check with your PowerSchool SIS administrator.

- Create the future year at each school and at the District Office

  If you don't create the future year in PowerSchool SIS, you won't be able to make courses available for scheduling next year, and, therefore, the school won't have a course catalog.

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PowerScheduler: Prepare to Build – Step A

Create the Future Year

Before starting your scheduling work in PowerScheduler, create next year's terms on the live side of PowerSchool SIS for the District Office and each school.

1. On the Start Page, click **School** > **Years & Terms**

   You'll see a list of the current and previous school years at this school.

2. Click **New**
3. Enter a name for the future school year
4. Enter an abbreviation for the future school yea
5. Enter the first and last days of school

		Example Entry
Name of School Year	2023-2024	2001-2002
Abbreviation	23-24	01-02
First Day of School	8/1/2023	08/23/2001
Last Day of School	7/28/2024	06/05/2002

6. Click **Submit**

   You don't have to add the individual terms for next year at this time. You will create the terms in PowerScheduler in the next step. When you commit the schedule, the year and terms will move from PowerScheduler to the live side of PowerSchool SIS automatically.

   Navigate to the District Office, if you have the access, once you've set up the future year at your school. Then, click **District** > **Years & Terms**. Add the future school year on the Years & Terms page using the same process.

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The list below outlines the steps of the Prepare to Build process.

A. Auto Scheduler Setup
B. Create the Scheduling Course Catalog
C. Define Schedule Parameters
D. Define Rooms
E. Define Student Information
F. Enter Student Course Requests
G. Define Course Information
H. Define Teacher Information
I. Define Constraints
J. Build Course Rank
K. Validate and Prepare to Build

Step A: Using the Auto. Scheduler Setup

Now that you've set up the future year on the live side of PowerSchool SIS, switch to the scheduling side and create a build scenario. When you create a build scenario, you define the overall parameters of your schedule for next year in PowerScheduler. While several people at your school may schedule students, only one person should perform the Auto. Scheduler Setup.

The Auto. Scheduler function sets up the terms, periods, and days associated with the school schedule. Using the function is optional, but setting up terms, periods, and days is required.

If you created years and terms on the scheduling side previously, performing the Auto. Scheduler function overwrites those years and terms, whether you created them manually or by using the Auto. Scheduler Setup. However, the Auto. Scheduler Setup does not overwrite the years and terms created on the live side.

Perform the Auto. Scheduler Setup

Perform the Auto. Scheduler Setup to create a build scenario.

1. Switch from the District Office to a school
2. On the Start Page, switch from the live side of PowerSchool SIS to the scheduling side by clicking **PowerScheduler**

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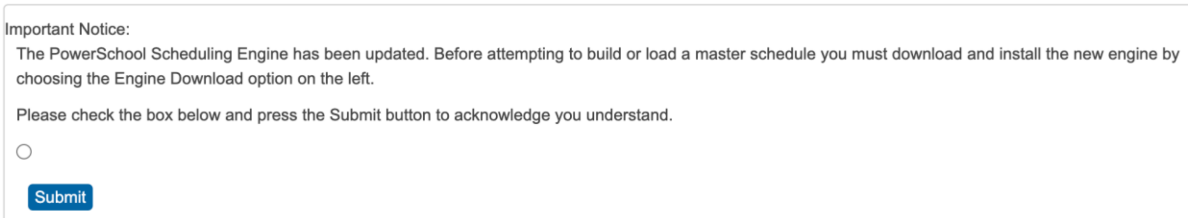
PowerScheduler: Prepare to Build – Step A

3. If you see the notice displayed in the following image, select the option and click **Submit**

   The notice below serves as a reminder that updates are made occasionally to the scheduling engine. If you navigate to a PowerScheduler page and see a message about updating the engine, you must download the most recent version of the scheduling engine. However, if you have previously installed the scheduling engine, uninstall it before reinstalling an updated version.

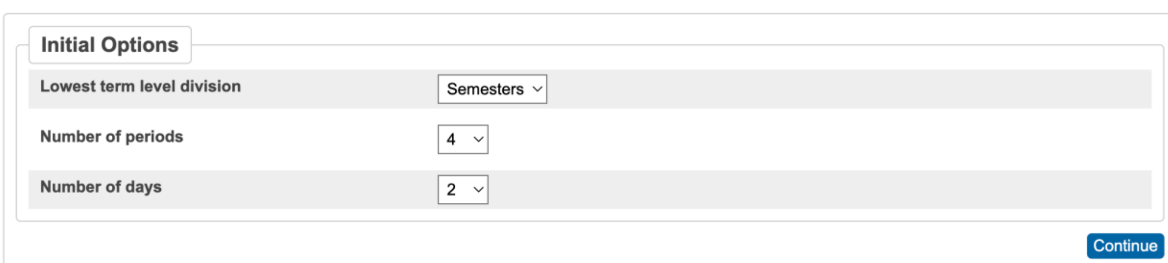


4. In the menu on the left side, below Scheduling Setup, click **Auto. Scheduler Setup**
5. Choose the term length of the school's shortest courses, the number of periods, and the number of days, then click **Continue**

   The “Lowest term level division” menu refers to types of course offerings: it does not refer to when you store grades or send out report cards. For example, your school sends out report cards every quarter. However, students don’t change courses each quarter; they change each semester. In that case, you would choose **Semesters** from the **Lowest term level division** menu.

   If your school uses blocks instead of periods, use the **Number of periods** menu to select your number of blocks.

   Use the **Number of days** menu to define the number of days in your rotation or day cycle, not how many days school meets each week. It refers to how many days occur before the cycle is repeated. For example, in a block schedule, your school may have A days and B days. Different classes meet on these different days. In this case, the number of days would be two because A day and B day need to meet before the cycle repeats itself.



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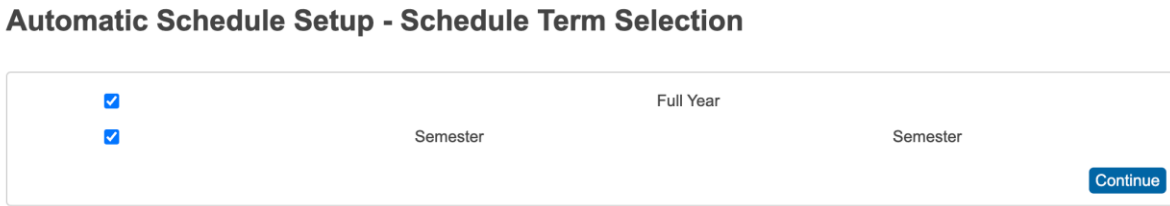
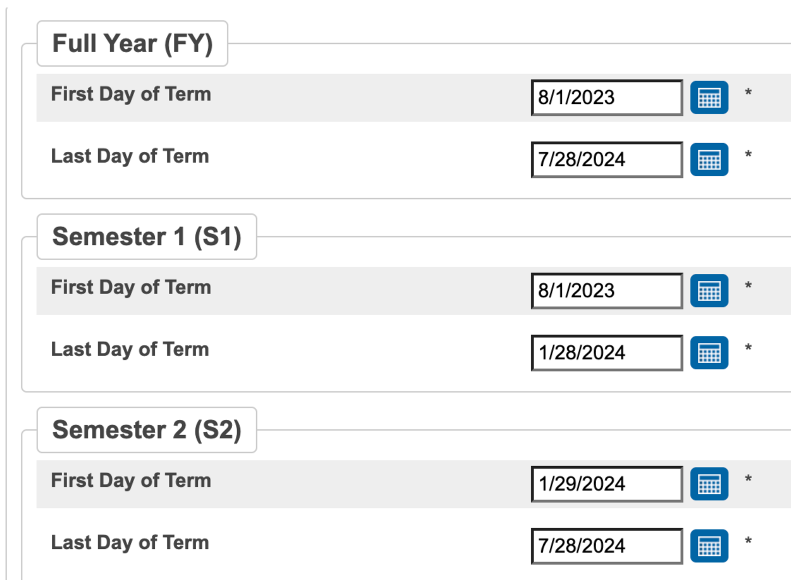
6. On the Auto Schedule Setup–Schedule Term Selection page, select the scheduling terms for your school, and then click **Continue**

   These terms apply to scheduling only, not grading terms. The full year term is selected by default since the full year term is required. Select the semester terms to include them in the process too.



7. Enter the dates for each of the terms and click **Continue**

   Make sure no gaps exist between the term dates. If your school hasn't finalized the exact dates, don't worry. You can change the dates at any time while working on the schedule, up until the moment you commit it. Committing the schedule is the last step in PowerScheduler.



8. Select **Build and Load** to use the scenario to build a master schedule and load students into the schedule

   Select **Load Only** if you plan to load students into a previously or manually created master schedule. If you are planning to perform a load, take the "PowerSchool SIS Power Scheduler: Load Process" course for more information.

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9. Edit the build name and description of the build, if needed

   The build name defaults to the name of the full year term, and the build description defaults to "Automated Schedule Setup." If you plan to create more than one scenario to try out different schedules—for instance, to compare a scenario with eight periods on a one-day cycle to a scenario with four periods on a two-day cycle—edit the **Build Name** and **Build Description** fields.

10. Use the default values for the **Terms**, **Periods**, and **Days** fields, which will contain the information you just set up in the Auto. Scheduler Setup

11. The Course Catalog menu will not contain options for first-time PowerScheduler users

    When first-time users submit the scenario, PowerScheduler will create an initial course catalog. If course catalog options are present, don't choose one. It is highly recommended that you create a new scheduling course catalog each year. You will create a new course catalog in Step B.

12. Use the default values in the **Build Optimizations**, **Load Optimizations**, and **Best Schedule Weights** fields at this time

    Use these fields only if you are actively building the schedule and encounter problems with the amount of time it takes to build your schedule.

13. Click **Submit** to complete the Auto. Scheduler Setup process

Edit the Build Scenario

After you use the Auto. Scheduler function, the Scenarios page will appear. The new scenario will contain the information you entered during the Auto. Scheduler Setup. While you can create several scenarios using Auto. Scheduler Setup, only one scenario can be active at a time in each school. Create a new scenario using the previous steps. By default, the newest scenario will be the active one.

If you need to change the terms, periods, or days in an existing scenario, do not perform the Auto. Scheduler Setup again. Instead, navigate to the Scenarios page, select the name of the active scenario, and make the necessary changes on the Edit Build Scenario page.

Set the Schedule Year

You can enter student course requests for the current year and/or for future years. Student course requests may come in via PowerScheduler, the PowerSchool SIS Student Portal, or the Modify Future Requests student page. To ensure these requests are associated with the future scheduling year, set the scheduling year. By setting the scheduling year, the request screens you create in PowerScheduler will apply to the future school year.

Setting the Scheduling Year

Set the schedule year to the future year that you created.

1. In PowerScheduler, below Tools, click **Functions**
2. Then click **Set Schedule Year**

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3. Choose the future schedule year from the **Years** menu

   Only the years established on the Years & Terms page on the live side of PowerSchool SIS are listed in the menu.

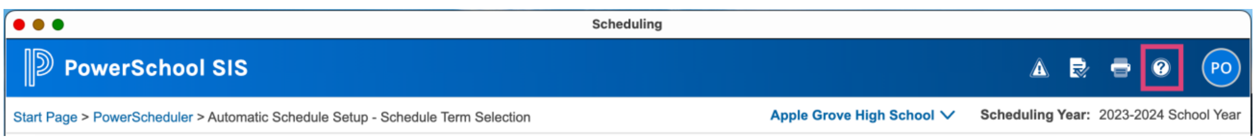
4. Click **Submit**

Summary

You have completed the first steps as part of your preparation to build a master schedule. In Step A, you:

- Decided to build a new master schedule instead of copying and loading a previous schedule
- Created the future year and terms on the live side of PowerSchool SIS
- Performed the **Auto. Scheduler Setup** to create your build scenario, including terms, periods, and days
- Set the scheduling year so student course requests and request screens will be associated with the future year

While completing the scheduling process, use the PowerSchool SIS Help menu, another great source of information. On any PowerSchool SIS or PowerScheduler page, click the **Help** icon to search for information about PowerScheduler. Next, continue the Prepare to Build process by completing Steps B and C.



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PowerScheduler: Prepare to Build – Steps B and C

You used Auto. Scheduler Setup to create a build scenario that outlines next year's terms, periods, and day cycles. Now it's time to complete the next two steps in the Prepare to Build process. First, create the scheduling course catalog and learn how to add new courses and create prerequisite rules. Then learn how to define optional scheduling parameters, including periods, days, departments, facilities, section types, teams, houses, and buildings.

A. Auto Scheduler Setup
B. Create the Scheduling Course Catalog
C. Define Schedule Parameters
D. Define Rooms
E. Define Student Information
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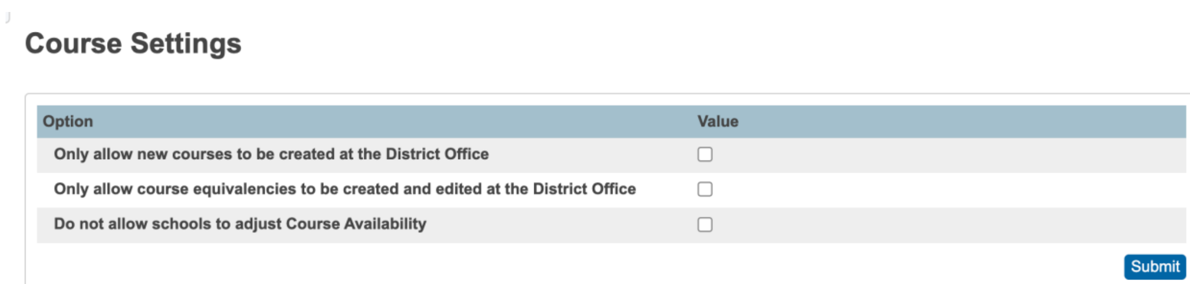
H. Define Teacher Information
I. Define Constraints
J. Build Course Rank
K. Validate and Prepare to Build

Step B: Creating the Scheduling Course Catalog

The scheduling course catalog lists the group of courses offered during a particular school year. You can add new courses and course prerequisites at any time. However, you must add or change prerequisites before you create course request screens if you want to include the courses in your PowerScheduler course catalog for the next scheduling year. You will create course request screens in Step F.

If you are an administrator at the district level and you would like to control who can create new courses, create and edit course equivalencies, and adjust course availability, switch to the District Office and click **District** > **Course Settings**. Select one or more of the options on the Course Settings page, then click **Submit**.



Course Settings

Option	Value
Only allow new courses to be created at the District Office	☐
Only allow course equivalencies to be created and edited at the District Office	☐
Do not allow schools to adjust Course Availability	☐

Submit

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PowerScheduler: Prepare to Build – Steps B and C

When you perform the Auto. Scheduler Setup for the first time, PowerScheduler creates a course catalog automatically. The new catalog is based on the future course catalog you created in PowerSchool SIS and the courses offered currently. After your first year using PowerScheduler, create a new scheduling course catalog every year so you can track the history of your school's course offerings.

To prepare to create a new scheduling catalog, add any new courses you plan to offer next year to the live side of PowerSchool SIS. Create the new courses at either the district or school level, depending on your district's policies. Then you or someone at the district must ensure the new courses are available at your school.

Next, modify the catalog by making courses available or unavailable for next year if necessary. To make courses available or unavailable for next year, navigate to the District Office and click **District** > **Courses**. Open the filter options and narrow the list of courses by selecting the school, course status, or other options. Check or clear course names until you have the exact courses you want. Select the check box next to the course name. Click **Edit Availability for Schools and Years**. On the left, select the appropriate school year and click **Next**.

On the left, select the appropriate school or schools. For the Association Type, check either **Make Available** or **Make Unavailable** depending on whether you are adding or removing courses from the available course list.

Click **Next**, review the summary of changes, and click **Submit**. The course will appear on the school's course list.

If you do not have security permissions to make courses available or unavailable, someone with district-level permissions must complete this task.

Finally, create and attach the scheduling catalog to the build scenario you will use to build your master schedule. The system schedules only the courses in the catalog that you associate with the active build scenario in PowerScheduler.

Adding a New Course

Add new courses on the live side of PowerSchool SIS, not in PowerScheduler. Also, avoid creating duplicate courses by first verifying that the courses you plan to add aren't already in your district's Master Course List. Switch to the **District Office**, then click **District** > **Courses** to see the master course list. If the courses you want to create are already listed on the Master Course List page, do not create new courses. Instead, switch back to your school and make the courses available for the future year so they can be scheduled.

Add a New Course

You can add new courses in PowerSchool SIS at either the district or school level, depending on your district's policies and your security permissions. Follow the steps below to create a new course at the school level.

1. On the Start Page, click **School** > **Courses** > **+ New Course**

   If you don't have access to create courses at the school level, your PowerSchool SIS administrator requires that you set up courses at the District Office. Switch to the District Office and click **District** > **Courses** > **+ New Course**.

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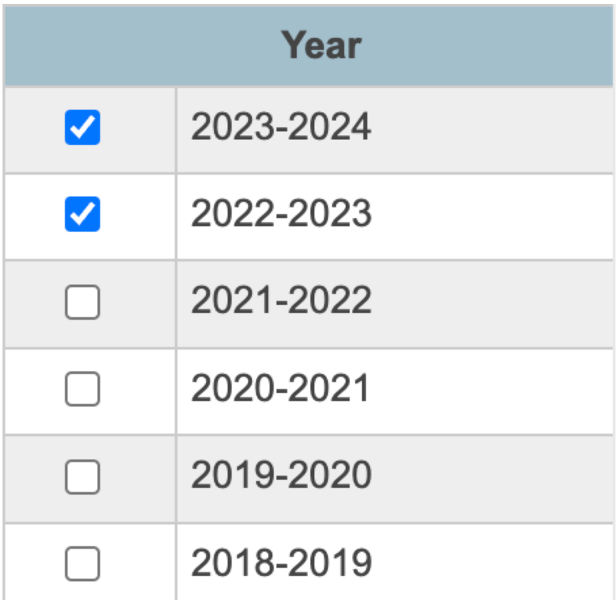
2. Enter course information in the fields, select the school(s) at which the course will be available, and select the school year(s) for which you want the course to be available

   Select the current school year and the future year if you want to make the course available to students during the current year and offer the course again next year. Otherwise, select only the future year to include the new course in next year's schedule.



3. Enter additional information about the new course and then click **Submit**

Course Prerequisites

Your prerequisite setup establishes the requirements that a student must meet before requesting a course. You can build simple or complex prerequisite rules for courses in your school's catalog based on criteria you define. You can specify that a student must earn a particular grade or a certain number of credits in order to request the next course. You can even require that a teacher submit a recommendation before the student can request the course.

When you add new prerequisite rules to a course, you need to decide whether students must satisfy all of the rules or any of the rules. For example, if a student has to pass a prerequisite course with a specific letter grade *and* obtain a teacher recommendation, all of the rules would be required. However, if a student has to pass a prerequisite course with a specific letter grade *or* obtain a teacher recommendation, then the student can satisfy any of the rules.

Prerequisites are course-specific, not school-specific. Therefore, once you add a pre-requisite rule to a course, that rule will apply to every school offering the course. Also, since schools use the same courses from one year to the next, once a prerequisite rule is set, it will remain in effect until someone removes or modifies the rule. You can create the following types of prerequisite rules:

- Letter Grade – Students must pass the prerequisite course with one of the specified letter grades

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- Percent Grade – Students must pass the prerequisite course with a minimum percentage grade
- Average Percent Grade – Students must pass the prerequisite courses with a minimum average percentage grade
- Credit Hours – Students must earn a range of credit hours in the prerequisite course(s)
- Concurrent Request – Students must request another course at the same time as this course
- Recommend – Students must receive a teacher recommendation in the PowerSchool SIS Teacher Portal to take the course
- Any of – Students must meet one of the established prerequisite rules
- None of – Students must meet none of the established rules
- All of – Students must meet all of the established prerequisite rules

Keep in mind that prerequisites limit the requests students can select on the student request pages. Prerequisites do not stop the PowerScheduler engine from loading a course into the student's schedule if you override the prerequisite rules for a student.

Adding Course Prerequisites

Since students submit most requests before second semester ends, you can define prerequisite rules on the assumption that students will complete and pass their current courses. For example, a set of prerequisite rules may specify that students must take Chemistry prior to Physics, and that students must earn an A, B, or C letter grade in Chemistry before requesting Physics.

The course requirements are the result of two prerequisite rules between Chemistry and Physics. Add these prerequisites on the live side of PowerSchool SIS to the Physics course.

1. On the Start Page, click **School** > **Courses**
2. Find and select **Physics**
3. Click the **Prerequisites** tab
4. In the **Prerequisite Note** field, enter ***Completion of Chemistry with a C or better***
5. Click the **+** sign in the Prerequisites Rules section
6. From the **Rule Type** menu, choose **Letter Grade**
7. Enter the beginning of the course number, such as ***SCI***

   Then, a list of matching courses will appear.
8. Select the course
9. In the **List of Grades** field, enter ***A,B,C***

   If the grade scale includes grades with pluses and minuses, such as B+ and B-, include those grades as well.
10. From the **If the Student Retakes** menu, use the default selection, **One must pass**
11. Check **Presume Completion**

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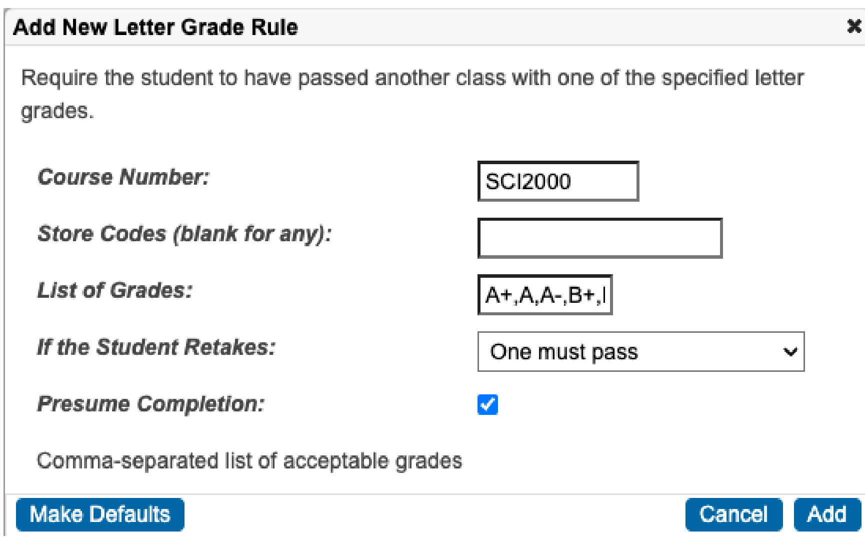
Check Presume Completion to ignore the prerequisite rule for the students who are taking the prerequisite course in the current term and temporarily allow students to request the class without completing the prerequisite.

To add flexibility to the Presume Completion rule, navigate to **School** > **Final Grade/Reporting Term Setup**. At the bottom of the Final Grade/Reporting Term Setup page, enter the number of days to extend the Presume Completion rule beyond the end of the term. After that number of days, the system will no longer presume the student passed the course and the request will become invalid if the student did not pass.

Alternatively, enter a negative number to stop the Presume Completion rule before the course ends. For example, entering -3 would stop the Presume Completion rule three days before the last day of the course.

Keep in mind, once you set up course prerequisite rules, they will be carried over from one scheduling year to the next. You can edit the prerequisite rules at both the district and school levels. You can also edit or add prerequisite notes and rules for a group of courses by clicking **Edit prerequisites for entire department** at the bottom of the page.



12. Click **Add**
13. Click the **+** sign again
14. From the **Rule Type** menu, choose **Recommend**
15. Enter the department of the teacher, such as ***SCI***
16. Click **Add**

    If the student must pass or receive a recommendation, click the **+** sign, choose the Any Of rule, and click **Add**. Then, click and drag the existing rules to the Any of section. The Any Of rule requires the student to meet one of the prerequisites, not all.

17. Finally, click **Save**

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PowerScheduler: Prepare to Build – Steps B and C

Creating the Scheduling Course Catalog

Every build scenario must have a scheduling course catalog associated with it. It's best to create a new catalog for each new scheduling year. By creating a new course catalog, you can keep track of which courses are offered each year. If you always use the same catalog, the catalog will be overwritten each year, and you will have no way to track your course offerings from year to year.

You can create your catalog in PowerScheduler and then attach it to your active build scenario. Once you have attached the catalog to a scenario, it becomes the active catalog, and you can edit the courses for next year. Then you can make course selections available for student course requests. The system schedules only the courses in whatever course catalog you have attached to the active build scenario.

If you are a first-time PowerScheduler user and you completed the Auto. Schedule Setup, you do not need to create a course catalog manually this time. Each subsequent year, create a new course catalog to ensure that you are scheduling courses that are available at your school currently. You aren't required to schedule every available course, but make sure that every course you do schedule will be available at your school next year.

Create the Scheduling Course Catalog

At this point, it's time to create the course catalog, and then attach it to the current build scenario.

1. On the Start Page, click **PowerScheduler**
2. Below Scheduling Setup, click **Course Catalogs** > **New**
3. Enter a name and description for the catalog
4. Click **Submit**

   The course catalog you create appears in the list, but the catalog is not active yet. You can edit only the course catalog associated with the active build scenario.

2020-2021	Not active catalog	Inactive	Edit
2021-2022	Not active catalog	Inactive	Edit
2022-2023	Not active catalog	Inactive	Edit
2023-2024	Not active catalog	Inactive	Edit

5. Below Scheduling Setup, click **Scenarios**, and select the name of the active scenario
6. From the **Course Catalog** menu, choose the name of the new catalog

Terms	2 Associate
Periods	4
Days	2
Course Catalog	2023-2024

7. Click **Submit**

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8. Below Scheduling Setup, click **Course Catalogs**
9. Click **Edit Course Catalog** in the row of the catalog you created

   If your catalog contains courses that are not available for scheduling at your school next year, you'll see a warning icon. Make those courses available at the district or school level (depending on your district's policies), then return to the Edit Course Catalog page.
10. Clear the check box next to each course you don't want to schedule next year

    By default, the system checks all courses made available for scheduling next year and offered this year. New courses added in PowerSchool SIS and made available at your school after you created the catalog will appear unchecked. Select the new courses to schedule them in the future year. If you don't see a course that was offered previously, click **Unavailable Courses** to find the course and check its box to make it active. Then, contact your PowerSchool SIS administrator to make that course available for next year.
11. Click **Submit**

Step C: Defining Optional Schedule Parameters

Depending on your scheduling preferences, you can define departments, facilities, section types, buildings, houses, and teacher teams. Each of the sections in Step C describes how to define these optional schedule parameters. You will learn about assigning additional parameters to individual rooms, courses, and teachers in subsequent steps. While several people may be scheduling students, only one person per school should set, define, and change these scheduling options.

Periods

By using the Auto. Scheduler Setup, you have already defined the year and terms, periods, and days for your build scenario. Revisit those items now just to be sure they are correct for next year. To add a new period or day to your schedule, edit the build scenario.

Perform the steps below to make manual modifications to the default name, abbreviation, and sort order of the periods.

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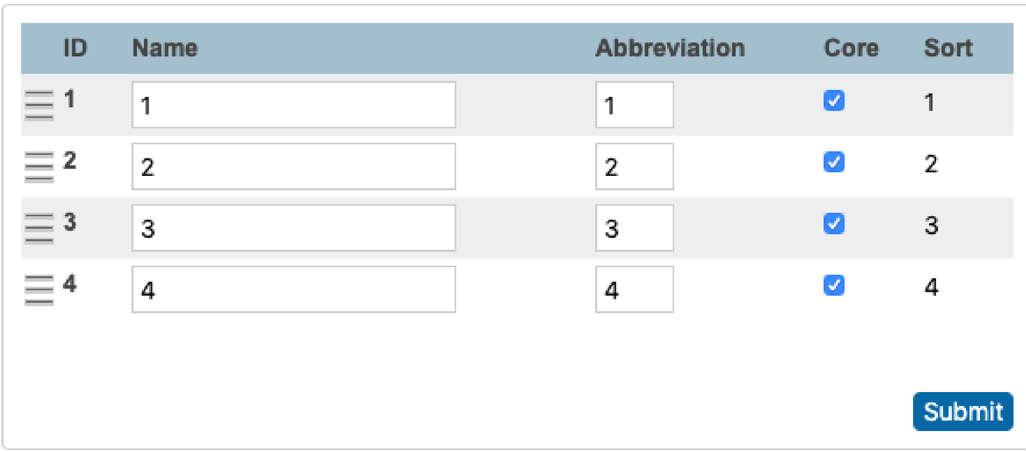
PowerScheduler: Prepare to Build – Steps B and C

1. In the PowerScheduler menu, below Scheduling Setup, click **Periods**

   The number of period IDs that appear on the Edit Periods pages depends on the number you choose from the **Periods** field on the Edit Scenario page. You cannot alter the ID number. This ID is listed on the Master Schedule report.

   By default, the period IDs match the period names, so when the ID is listed, you know which period the ID refers to. But you do have the option to modify the name in the **Name** field.

   For example, many schools have a homeroom period and change a period name to “Homeroom” for easy identification. To use this example, change the last period to ***Homeroom*** and in the **Abbreviation** field, enter ***HR***. Then use the drag and drop bars next to the ID numbers to make Homeroom first on the list.

2. To save any changes, click **Submit**

Days

To add or remove a cycle day from your schedule, edit the build scenario. Perform the following steps to make manual modifications to the default name and abbreviation of the days.

1. Below Scheduling Setup, click **Days**
2. Enter the name and abbreviation for each day

   Changing the default name and abbreviation is optional.

3. Click **Submit**

Departments

Courses, rooms, and teachers can belong to departments. When building a master schedule that uses departments, the system attempts to schedule courses in one of the rooms belonging to that department. Creating departments is optional, but it is highly recommended to ensure accurate scheduling. Departments are also essential for schools that use Graduation Planner.

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PowerScheduler: Prepare to Build – Steps B and C

Before adding departments in PowerScheduler, navigate to the School Setup page on the live side of PowerSchool SIS. Then, click **Departments**. If you have departments created in PowerSchool SIS already, create the same departments in PowerScheduler. The departments must match exactly, or errors can occur when building the schedule.

1. Navigate to PowerScheduler, then below Scheduling Setup, click **Departments**
2. Click **New**
3. Enter a name for the department
4. Click **Submit**

Facilities

Use facilities to force a course into a particular room or rooms. Facilities override departments. For example, you may have five science rooms, but only two of the rooms are chemistry labs. Create a facility titled Chemistry Lab and associate the lab with those two rooms. Also, attach the Chemistry Lab facility to the Chemistry course. When the system schedules Chemistry, it will schedule the course into the two rooms with labs, and not the other three science rooms.

1. Below Scheduling Setup, click **Facilities** > **New**
2. Enter a name for the facility, such as ***Chemistry Lab***
3. Click **Submit**

Section Types

Use section types to differentiate sections of a course. For example, PE courses are taught by grade level and need a section for each grade level. Assign the section type to teacher assignments and student requests. Then, when PowerScheduler loads students into the master schedule, it filters students with the appropriate section type into the appropriate teacher's section.

1. Below Scheduling Setup, click **Section Types** > **New**
2. Enter a name and code for the section type
3. Click **Submit**

Teacher Teams

Some schools—most often middle or junior high schools—assign students and teachers to interdisciplinary teams to provide students with the best support and monitoring system. For example, a 6th-grade teaching team may consist of four teachers who each specialize in a core academic subject such as math, science, language arts, and social studies. They work together to provide an instructional community for a group of students. Students take their core academic courses from the team teachers and take elective classes from other teachers and with students from other teams.

Teams fall into two categories: static or dynamic. To create static teams, assign each student and teacher to a team manually. To create dynamic teams, assign teachers to a team. Then, the system assigns students to the appropriate team for the best balance.

1. Below Scheduling Setup, click **Teams** > **New**
2. Enter a name for the team

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3. Click **Submit**

ID	Team
752	Bluebirds
751	Cranes
3914	Flamingos
3915	Parrots

If you decide to mass assign students to teams, you will need to use the ID number of the team, not the team name.

Houses

Some schools separate students into houses, which function like a school within a school. Define houses to group students together. For example, you can assign half the student body to House Blue and the other half to House Gold. Associate houses with teachers, students, and rooms. The system checks which house a room is assigned to before scheduling courses in that room and gives scheduling priority to the appropriate house. To enable houses, click **PowerScheduler** > **Scenarios** > **Edit**. Check **Use houses** on the Edit Advanced Build Scenario page and save your changes.

You may wonder how houses and teams are different. If a student is assigned to a house, all of his classes will be with students from that house. Typically, when a student is assigned to a team, she will attend core classes with the team, but mingle with other students for elective classes.

1. Below Scheduling Setup, click **Houses** > **New**
2. Enter a name for the house
3. Click **Submit**

Buildings

If your school holds classes in several buildings or campuses, you can define which teachers, students, and rooms are associated with each building. Buildings ensure that the system schedules courses in the appropriate building, taught by the appropriate teacher, and taken by the appropriate students. To enable buildings, click **PowerScheduler** > **Scenarios** > **Edit**. Check **Use buildings** on the Edit Advanced Build Scenario page and save your changes.

1. Below Scheduling Setup, click **Buildings** > **New**
2. Enter a name for the building
3. Click **Submit**

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PowerScheduler: Prepare to Build – Steps B and C

Summary

You have completed the next two steps in the Prepare to Build process. In Steps B and C, you:

- Added a new course for scheduling next year
- Created course prerequisites for new and/or existing courses
- Created the scheduling course catalog and attached it to the active build scenario
- Defined optional scheduling parameters including periods, days, departments, facilities, section types, teams, houses, and buildings

While completing the scheduling process, the PowerSchool SIS **Help** menu is another great source of information. On any PowerSchool SIS or PowerScheduler page, click the **Help** icon to search for information about PowerScheduler. Next, continue in the Prepare to Build process with Steps D and E.

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PowerScheduler: Prepare to Build – Steps D and E

You've prepared to build your master schedule by creating a build scenario, adding new courses and prerequisites, creating a scheduling course catalog, and defining optional scheduling parameters. Next, define scheduling parameters for rooms and students.

A. Auto Scheduler Setup
B. Create the Scheduling Course Catalog
C. Define Schedule Parameters
D. Define Rooms
E. Define Student Information
F. Enter Student Course Requests
G. Define Course Information
H. Define Teacher Information
I. Define Constraints
J. Build Course Rank
K. Validate and Prepare to Build

First, learn how to define rooms manually and by using the Auto Create Rooms, Auto Generate Rooms, and Update Selections functions. Then learn how to prepare student information for successful scheduling. To prepare the student information, move student information into PowerScheduler. Then update student scheduling preferences both manually and with the Auto Fill Student Information and Update Selections functions.

Step D: Defining Rooms

Your school's campus is essential to the scheduling process. In previous steps, you've created the necessary facilities and departments in your school. Now, create or update your room information, and associate the appropriate facilities and departments with each room. Filter and sort the columns on the Rooms page so that you can quickly organize and locate rooms. Use the **Search** field to filter the list of rooms. Click a column heading to sort the list of rooms by room number, descriptions, department, maximum capacity, and so on.

When defining rooms, you can do any combination of the following:

- Define and update your rooms manually, one at a time
- Auto-create rooms to create a series of rooms with a predefined set of criteria
- Use the **Update Selections** function to update one field of information for a group of rooms at one time

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PowerScheduler: Prepare to Build – Steps D and E

Automatically Generate Rooms

Only first-time PowerScheduler users need to perform the Auto Generate Rooms function as part of their build to move the rooms from this year's master schedule to PowerScheduler. After the first year of using PowerScheduler, your school's classrooms will already appear in PowerScheduler and you will not need to use this function again unless you are loading students into a copied master schedule as part of the Load Process. The Auto Generate Rooms function overwrites any manual changes or rooms you created for the new schedule year, so first-time users should perform this function before making manual changes or using the Auto Create Rooms function.

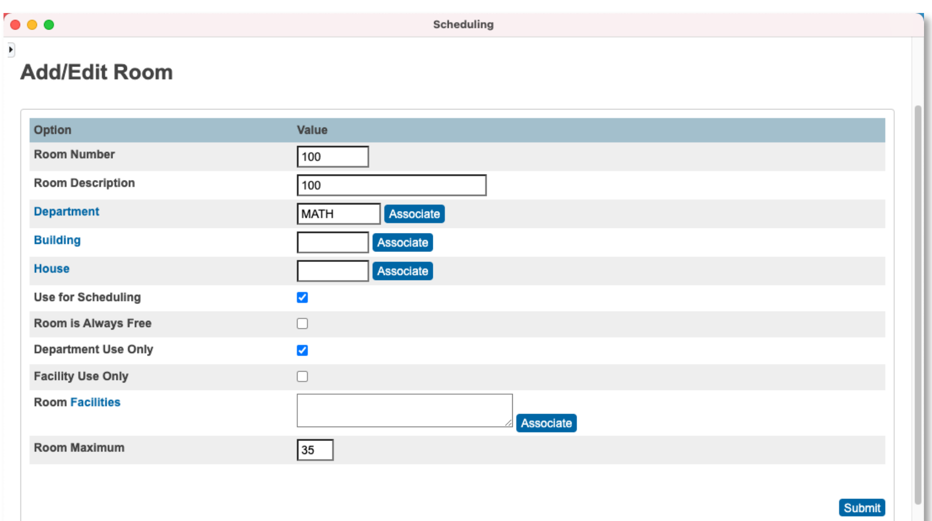
1. Below Tools, click **Functions** > **Auto Generate Rooms**
2. Check **Select checkbox to verify the command** to copy all rooms from the current year's master schedule to the new master schedule you are building
3. Click **Submit**

Define Rooms Manually

Create a new room or edit an existing room one at a time in PowerScheduler.

1. On the Start Page, click **PowerScheduler**
2. Below Resources, click **Rooms**
3. Click **New Room** to create a new room, or click a room number to edit an existing room
4. Enter or update the room number and room description
5. For Department, click **Associate** and select a department
6. Associate a building and/or house to the room, if applicable.
7. Check **Use for Scheduling** to ensure the room is used in the schedule

   If multiple classes can take place in the room at the same time throughout the school day, check **Room is Always Free**. If you want to reserve the room for classes associated with the room's department, check **Department Use Only**, but keep in mind that this restricts the flexibility of the scheduling engine.



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8. Check **Facility Use Only** if the room contains a facility, such as a chemistry lab, and you want to restrict use of the room to classes that require that facility

   If the room contains a facility, click **Associate** > (Select the facility) > **Submit**.

9. Enter the room maximum

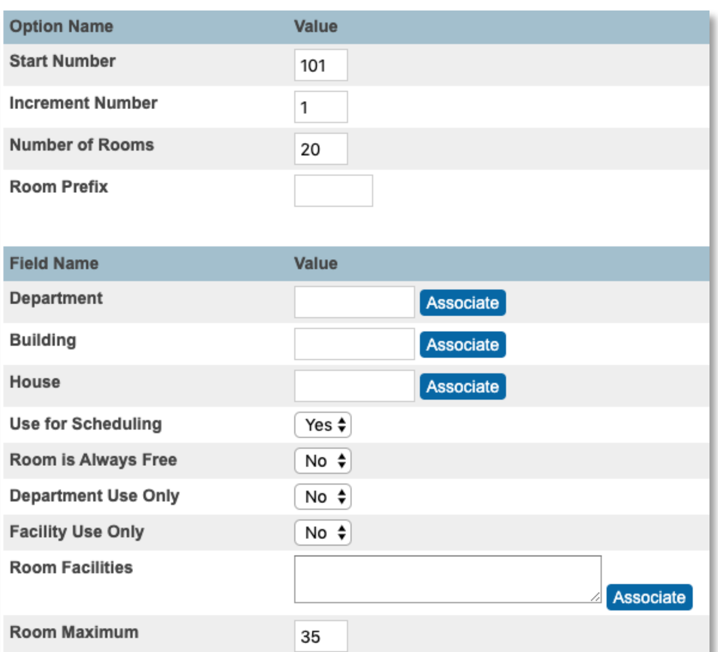
   The **Room Maximum** field is essential. Make sure that the course maximum does not exceed the room maximum.

10. Click **Submit**

Automatically Creating Rooms

You can create a set of rooms at one time with the Auto Create Rooms function. Once the system creates the rooms, you can go back to each room and modify the information manually as needed.

1. Below Tools, click **Functions** > **Auto Create Rooms**
2. Enter a start number, increment number, number of rooms, and a prefix to the room number, if applicable
3. Associate a department, building and/or house as needed
4. From the **Use for Scheduling** menu, choose **Yes**
5. Fill out the remaining fields as needed



Option Name	Value
Start Number	101
Increment Number	1
Number of Rooms	20
Room Prefix	

Field Name	Value
Department	Associate
Building	Associate
House	Associate
Use for Scheduling	Yes
Room is Always Free	No
Department Use Only	No
Facility Use Only	No
Room Facilities	Associate
Room Maximum	35

   The remaining fields are optional and may or may not be appropriate to complete, depending on the group of rooms you are creating. For example, if you are creating rooms for a new wing of the school, but the room maximums vary, leave the **Room Maximum** field blank or enter the most common maximum, and change the exceptions after creating the rooms.

6. Click **Submit** to create the rooms with the scheduling information you defined

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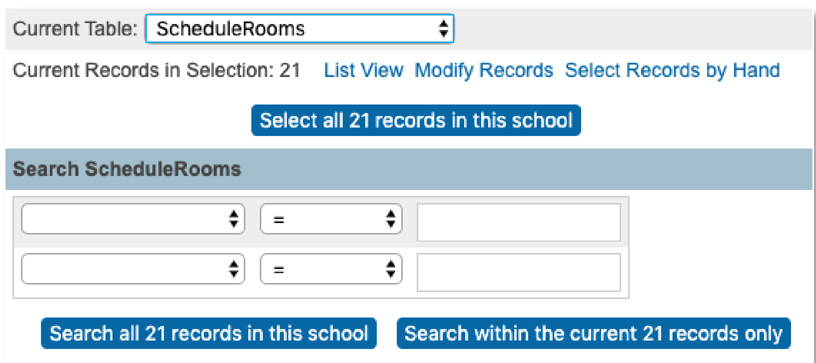
PowerScheduler: Prepare to Build – Steps D and E

Modifying Room Data Using the Update Selections Function

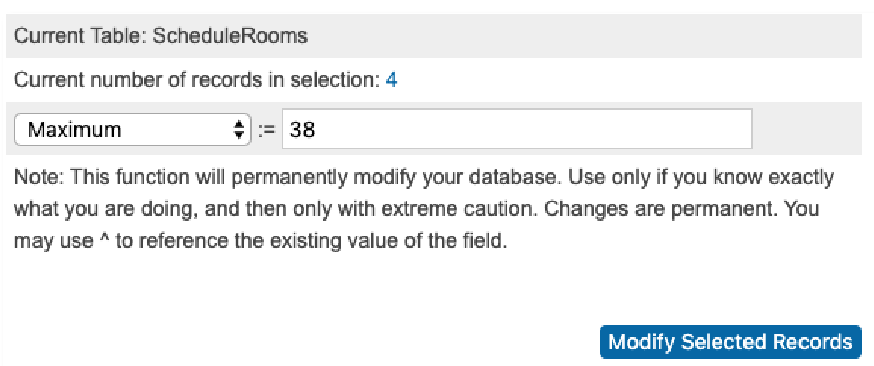
Mass update one field for a group of rooms using the Update Selections function. Using the Update Selections function is similar to using DDE/DDA to search for information from PowerSchool SIS tables. In PowerScheduler, searches and modifications are limited to the tables used for scheduling.

1. Below Tools, click **Functions**
2. Then click **Update Selections**
3. From the **Current Table** menu, choose **ScheduleRooms**
4. Do one of the following:
   a. Click **Select all [xx] records in this school** to select all rooms
   b. Use the **Search ScheduleRooms** fields to search for and select rooms that meet specific criteria, such as all rooms in the English Department



5. Click **Modify Records**
6. Choose the room field you want to edit from the menu

   For example, all the rooms in the English Department need the same room maximum, so choose **Maximum**.
7. Enter a value for the selected rooms, such as ***38***



8. Click **Modify Selected Records**
9. Click **Confirm Modify Selected Records** to record the changes

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Step E: Defining Student Information

In PowerScheduler, "student information" doesn't refer to student demographic information like addresses and phone numbers. Instead, student information refers to scheduling preferences, such as next year's grade level and next school indicators. For successful scheduling, you must define student information before entering student requests. For example, the Next Year Grade field not only tells PowerSchool SIS what grade level the student will have next year, but also which request form to associate with the student. First, move student information to PowerScheduler. Then update student scheduling preferences manually or by using the Auto Fill or Update Selections functions.

Moving Student Information to PowerScheduler

Before you can start scheduling students, use the Scheduling Setup student page and the **Next School Indicator** field to move student information to PowerScheduler.

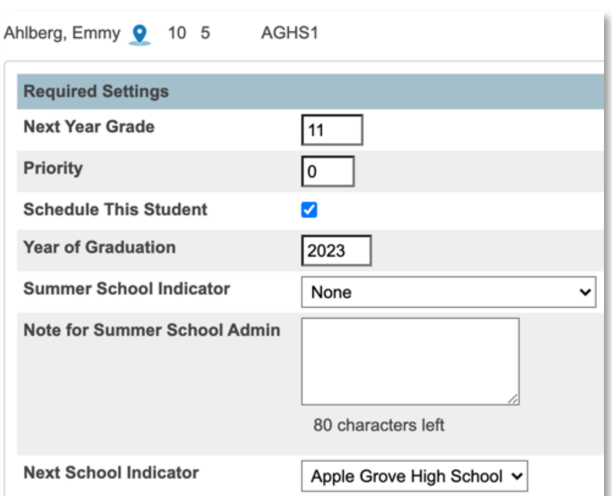
Move Student Information to PowerScheduler

Begin the process on the live side of PowerSchool SIS with the **Scheduling Setup** student page.

1. On the school's Start Page, search for and select a student who will attend this school next year
2. Below Scheduling, click **Scheduling Setup**

   As you enter new students into PowerSchool SIS, complete the Scheduling Setup page as part of the data entry process. Then, each year, the Scheduling Setup page will be updated with the end of year process. While you complete several fields on the Scheduling Setup page, only the Next School Indicator field places a student in PowerScheduler.
3. From the **Next School Indicator** menu, choose a school, such as **Apple Grove High School**

   If you don't have options in the **Next School Indicator** menu, navigate to the Start Page. Click **School** > **Next School** > **New** to add the next school options.



4. Click **Submit**

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You don't have to set the **Next School Indicator** field manually for every student. Use the **Next School Indicator** group function to set this field for an entire grade level. On the Start Page, select a group of students. Click the **Select Function** arrow and then click **Next School Indicator**. Use the group function on a regular basis to update any new student records that might be missing this information. Keep in mind that when you run the group function for the highest grade level in your school, those students will be graduating or moving to a different school. The remaining fields on the Scheduling Setup page will be covered in the next section.

Updating Student Scheduling Preferences

You must enter scheduling preferences before your students start submitting requests. If you don't enter the preferences, students will have access to the wrong request forms or no request forms at all.

You can enter or update scheduling preferences using any of the following methods:

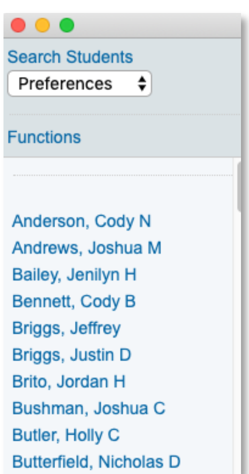
- Update or enter scheduling preferences for each student manually, one at a time
- Auto-fill scheduling preferences for students by year of graduation
- Use the **Update Selections** function to update a field of information for several students at a time

Update Student Scheduling Preferences Manually

Depending on the number of students at your school, you might choose to update scheduling preferences manually, one at a time. However, manually updating takes the most time.

1. On the Start Page, click **PowerScheduler**
2. Below Resources, click **Students**
3. Search for and select a student or group of students

   Once your selection is complete, the students you selected appear in the students menu on the left.
4. Choose **Preferences** from the menu at the top of the student list, and click a student's name



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5. Verify that the **Next Year Grade** field is complete and correct

   The Next Year Grade field indicates the request screen each student will use to submit his or her course requests for the next school year, and which grade level the student will be promoted to when the end of year process is run.

6. Enter a number in the **Priority** field or verify that it is correct

   Use the **Priority** field to indicate which students PowerScheduler is to schedule first. For example, incoming seniors have a higher priority than incoming freshman. The lower the number, the higher the priority. Use the priorities 10, 20, 30, and 40. If you have one senior who needs a higher priority than the rest, enter the priority 9. Use the priority gaps for scheduling flexibility.

7. Verify that **Schedule This Student** is checked for every student you want to schedule

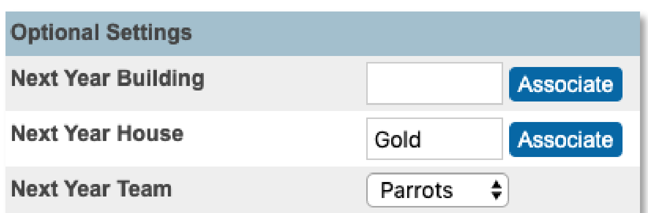
   The "Schedule This Student" check box includes the student in the load process. If this box is not checked, the student's information will not be moved to the PowerScheduler side, and the student will not be scheduled. Make sure to clear this box for graduating students.

8. Enter the student's graduation year in the **Year of Graduation** field

9. Verify that the **Next School Indicator** field is set to the correct school

10. Complete the Optional Settings section if your school uses buildings, houses, and/or teams

    Buildings, houses, and teams are described and set up in Step C.



11. Click **Submit**

12. Repeat steps 5–11 to enter scheduling preferences for each of the students you select

Automatically Filling Student Scheduling Preferences

Use the **Auto Fill Student Information** function to enter student information for a group of students. You can use the **Auto Fill Student Information** function as often as you'd like to make sure all students' scheduling preferences are entered in PowerScheduler. However, you should not use the function once you start making manual changes for the students who are being retained. When you retain students, you switch their **Next Year Grade**, **Year of Graduation**, and possibly the **Next School Indicator** fields; consequently, if you use auto-fill after you have processed a retained student, you will overwrite the students' retention information.

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PowerScheduler: Prepare to Build – Steps D and E

1. In the PowerScheduler menu, below Tools, click **Functions** > **Auto Fill Student Information**

   The Auto Fill Student Information page is always blank and does not store the information you auto-filled last.

2. Enter information by grade level. You can auto-fill information for one or more grade level at a time, or for all grade levels. Enter the next year grade level, scheduling priority number, and graduation year. Use the menu to indicate whether or not to schedule each grade level.

   When entering information for 12th graders, remember that graduating seniors don't need to be scheduled next year.

Field Name	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Next Year Grade	9	10	11	12	99
Priority	40	30	20	10	
Schedule This Student	Yes	Yes	Yes	Yes	No
Year of Graduation	2027	2026	2025	2024	2023

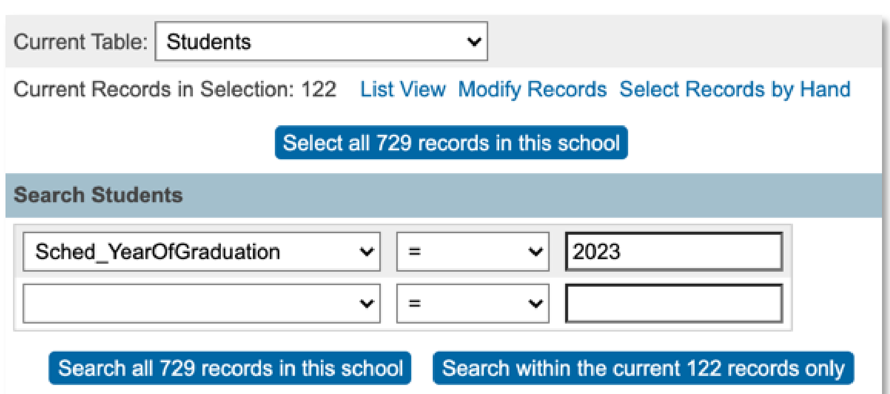
3. Click **Submit**

Updating Student Scheduling Preferences Using the Update Selections Function

You can also use the **Update Selections** function to enter and/or modify student scheduling information for a selection of students.

1. Below Tools, click **Functions**
2. Then click **Update Selections**
3. From the **Current Table** menu, choose **Students**
4. Do one of the following:
   - Click **Select all [xx] records in this school** to select all students
   - Click **Select Records by Hand** to select a specific group of students

     Use the **Search Students** fields to search for and select students who meet specific criteria, such as all students graduating in ***2023***.



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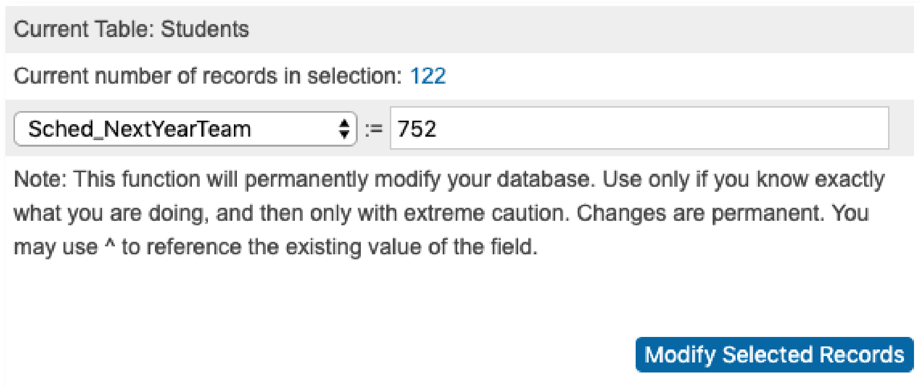
5. Click **Modify Records**
6. Choose the student field you want to edit from the menu

   For example, to identify the team the selected students will be scheduled with next year, choose **Sched_NextYearTeam**.



7. Enter a value in the blank field, such as the team ID

   You can find this ID number by clicking **Teams** in the Scheduling Setup section of the navigation menu.
8. Click **Modify Selected Records**
9. Click **Confirm Modify Selected Records**

Another option is to use the **Calculate Target Number of Sections to Offer** function. This function uses the Maximum Enrollment field in the course preferences and the number of primary (not including alternate) student requests for the course to calculate the number of sections the school needs to offer to satisfy all requests. Use this function after you have defined the **Maximum Enrollment** field for all courses, and once student requests have been entered. Click **PowerScheduler** > **Functions** > **Calculate Target Number of Sections to Offer**.

Summary

You have completed the next two steps in the Prepare to Build process. In Steps D and E, you:

- Defined your classrooms by updating room information manually and/or by using the **Auto Create Rooms**, **Auto Generate Rooms**, and **Update Selections** functions
- Moved student information to PowerScheduler
- Updated student information manually and/or by using the **Auto Fill Student Information** and **Update Selections** functions

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PowerScheduler: Prepare to Build – Steps D and E

While completing the scheduling process, the PowerSchool SIS Help menu is another great source of information. On any PowerSchool SIS or PowerScheduler page, click the **Help** icon to search for information about PowerScheduler. Next, continue in the Prepare to Build process with Step F.

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PowerScheduler: Prepare to Build – Step F

So far, you have created a build scenario and a scheduling course catalog, and defined scheduling settings, rooms, and student information. Next, you will prepare to enter student course requests. Once you define your school's grade-level requirements, you will learn how teachers and administrators enter course recommendations in the PowerSchool SIS Teacher Portal and PowerSchool SIS. Then you will create course groups and student course request pages. Finally, learn how to enter student course requests in PowerScheduler, in the PowerSchool SIS Student and Parent Portals, and in PowerSchool SIS. Finally, learn how to override course prerequisites and use course request tools.

A. Auto Scheduler Setup
B. Create the Scheduling Course Catalog
C. Define Schedule Parameters
D. Define Rooms
E. Define Student Information
F. Enter Student Course Requests
G. Define Course Information
H. Define Teacher Information
I. Define Constraints
J. Build Course Rank
K. Validate and Prepare to Build

Step F: Entering Student Course Requests

It's important to complete all the previous steps of the scheduling process before entering student course requests for next year. This means performing the Auto Schedule Setup, creating a build scenario, completing the scheduling course catalog, defining rooms, and entering student information. Also define any optional scheduling settings, such as teams, buildings, and facilities. Once you have completed these steps, it is time to gather student course requests. Begin by defining the grade-level requirements for your school.

Defining Grade-Level Requirements

Before starting the process of creating request screens, spend some time researching and gathering course information for each grade level at your school. Outline the grade-level course requirements to save time and avoid errors when creating course groups and request screens. First, collect the following information for each grade level:

- Required courses
- Number of credits students must earn
- Possible semester elective courses
- Possible year-long elective courses
- Possible no-credit courses

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- Number of terms for each request
- Before- or after-school courses
- Possible lunch periods

Take the time to gather requirement information first so you can perform all of the following steps efficiently. You will use this information to create course groups and course request pages for each grade level.

Course Recommendations

Teacher recommendations are another element of the request process. Certain courses will require a teacher's recommendation prior to submitting course requests. Teachers submit their recommendations in the PowerSchool SIS Teacher Portal. You can edit and delete recommendations in PowerSchool SIS. Administrative staff members can also submit recommendations using the Request Management link in the student pages menu.

Adding Recommendations in the PowerSchool SIS Teacher Portal

Teachers can enter course recommendations one student at a time or for multiple students at once in the teacher portal. Teachers can recommend only the courses available at their school, and they can create recommendations only for students they teach.

1. On the teacher portal Start Page, click **Recommendations**
2. Click **Create Recommendations**
3. Select the classes in which the students are enrolled, or check the Class(es) box in the upper-left cell of the table to select all classes

Class(es)

	Period / Day	Section Number	Course Name	Course Number
	1(A)	2	U.S. History	SOC1000
	3(B)	3	Current Affairs	SOC2000
	4(A)	5	U.S. History	SOC1000

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4. Select the students for which you want to submit the recommendation, or check the **Students** box in the upper-left cell of the table to select all students

Students

☐	Last Name	First Name	Student Number
☑	Bailey	Jenilyn	35
☐	Bennett	Cody	41
☑	Brito	Jordan	62
☐	Bushman	Joshua	71
☑	Butterfield	Nicholas	73
☐	Dansie	Amanda	924
☑	Emch	Felicia	949
☐	Gilbert	Isaac	973

5. Click **Next**
6. Choose the year for which to submit the recommendation
7. Check the course you are recommending for these students, such as **AP History**
8. In the **Comments** field, enter a comment describing the recommendation, such as ***Recommend AP History based on student performance in US History.***
9. Click **Submit**

   Edit or delete individual recommendations at any time by clicking the **Edit** icon.

Editing Recommendations in PowerSchool SIS

When a teacher submits a recommendation for a student, that recommendation will be listed on the Manage Recommendations student page. Administrative staff with access to the page can edit the recommendations and add new recommendations.

1. On the Start Page, search for and select a student
2. Under the Scheduling section, click **Request Management** > **Manage Recommendations**
3. Click the **Edit** icon to make changes or to delete a recommendation
4. To enter a new recommendation, click **Create New Recommendation**
5. In the **Course Number** field, enter the beginning of the course number and select the course from the list that appears
6. Choose the future scheduling year from the **Scheduling Year** menu
7. In the **Comments** field, enter a comment describing the recommendation, such as ***Counselor recommendation after student conference.***
8. Click **Submit**

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PowerScheduler: Prepare to Build – Step F

Creating Course Groups

Use course groups to organize courses into groups that satisfy academic requirements, such as a requirement that students take at least one math class each semester. Course groups represent the range of courses that are available to a student for a particular request on the student request screens. For example, every senior must select an English class from the 12th Grade English course group that contains English 12, AP English, Creative Writing, and Journalism.

You can create as many course groups as needed for each grade level and subject at your school. Consider setting up different course groups for required courses, core academic courses, semester-long electives, and year-long electives for each grade level. Course groups carry over from year to year and can be edited as your school's course offerings change.

Create a Course Group

Create course groups in PowerScheduler. When students enter their course requests, they will be presented with options from the course groups you create.

1. On the Start Page, click **PowerScheduler**
2. From the PowerScheduler menu, below Requesting, click **Course Groups**
3. Choose the order in which you want courses to be listed on the student course request pages from the menu

   You can sort courses by name or number.
4. On the left, click **New** at the top of the group list
5. Enter a name for the course group

   It is helpful to include the grade level and the subject in the name of the course group, such as ***11th Grade Social Studies***.
6. From the **Type** menu, use the default selection, **Scheduling Only**
7. Select where to apply the course group: all schools or the current school
8. Click **Current Catalog**

   Use the Current Catalog (the scheduling catalog created in PowerScheduler, not the School Master Schedule) when creating your course groups to ensure that a course group doesn't contain classes that are no longer offered.

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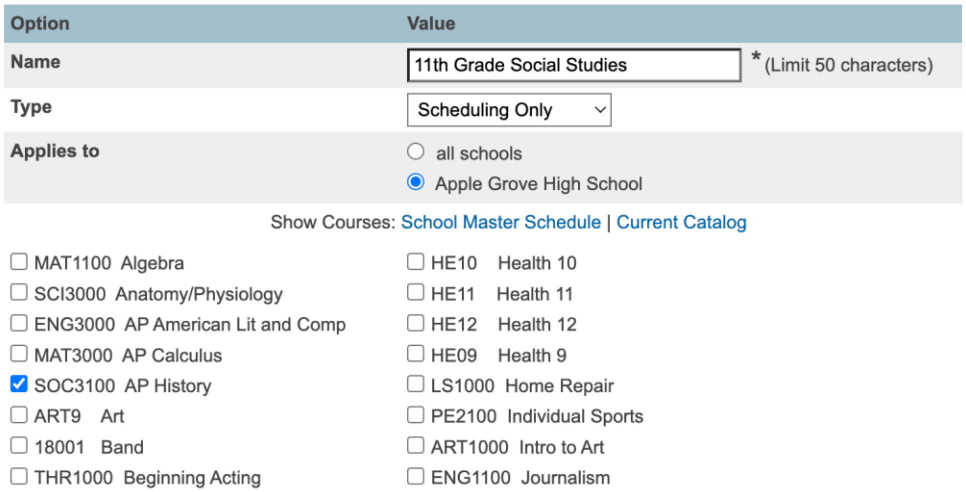
9. Check the name of each course that belongs to the course group



10. Click **Submit**
11. Continue creating course groups for each grade level and/or subject, and click the name of a course group to edit it as needed

Creating Requirements

The course requirements you create determine which courses students must take. Add course requirements to course request screens that students, parents, and staff members use to select classes from course groups. Course request screens and requirements are copied from year to year, so once you create them the first time, you can then edit existing screens as requirements change.

The three types of requirements are:

- Single-course requirement
- Multi-course requirement
- Core requirement

Start by creating new requirements, then preview and activate the request screens in PowerSchool SIS and in the PowerSchool SIS Student and Parent Portals.

Single Course Requirements

Use a single-course requirement when students need to make just one selection from a course group. For example, the juniors must choose one English class from a list of possible English classes.

1. From the PowerScheduler menu, below Requesting, click **Screen Setup**
2. Select the appropriate grade level

   Make sure to choose the grade levels the student will be in during the scheduling year.
3. In the middle of the page, click **New Single Course Requirement**
4. Enter a requirement name and description/instructions for the students

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5. From the menu, choose a course group that contains the list of courses that fulfill the requirement
6. Choose whether the student must select a course or may leave the requirement blank

   Complete the entire page to ensure a successful request form. For example, if each student must select a course from the group, choose **Must select one**.
7. Enter a message to display if the requirement isn't completed correctly, or leave this field blank to have a generic message appear for students
8. From the Request type menu, choose **Required**, **Elective**, or **Alternate**

   Use the Request type field to define a general priority for the request. The system schedules required requests first, elective requests second, and alternate requests third. If an elective course cannot be scheduled, an alternate takes the elective's place.
9. Enter a sort order number for the placement of the requirement on the request screen

   For example, enter the sort order number ***0*** to place the requirement first. Complete the entire page to ensure a successful request form.
10. Click **Submit**

Multi-course Requirements

Use a multi-course requirement when students need to choose several courses from a course group. For example, suppose 10th graders can choose up to two semester-long elective courses. You define the number they must select.

1. From the PowerScheduler menu, below Requesting, click **Screen Setup**
2. From the **Requests** menu, click the appropriate grade level
3. In the middle of the page, click **New Multi-Course Requirement**
4. Enter a requirement name and description/instructions for the students
5. From the menu, choose a course group that contains the list of courses that fulfill the requirement
6. Enter the minimum and maximum number of courses the student must select

   For example, if the student can select up to two courses but isn't required to select a course, enter ***0*** in the Min field and ***2*** in the Max field.
7. Enter a message to display if the requirement isn't completed correctly
8. From the **Request type** menu, choose **Required**, **Elective**, or **Alternate**

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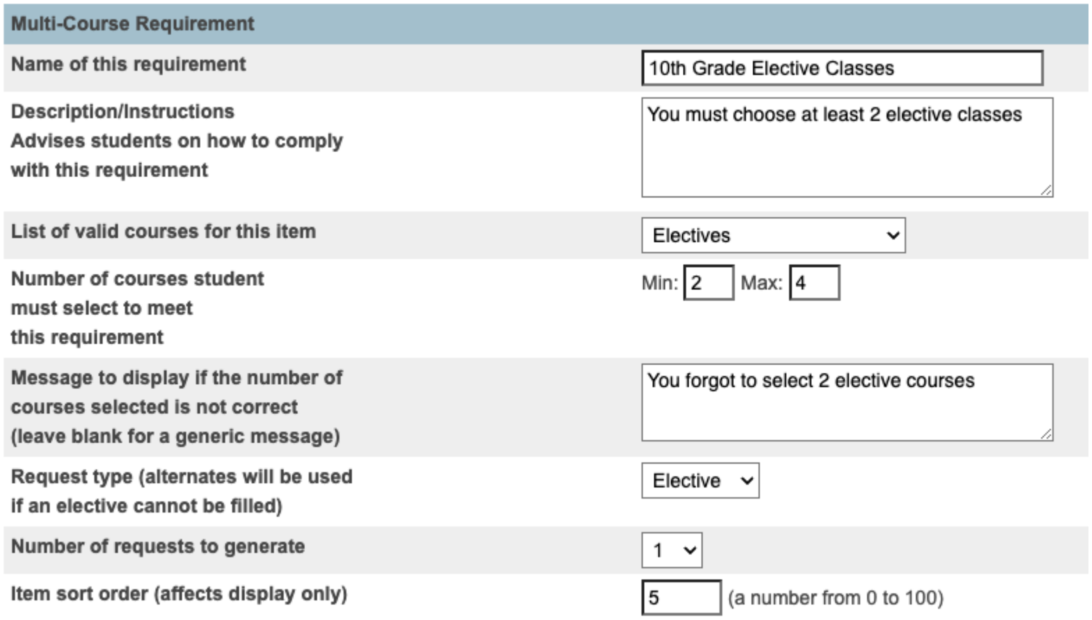
9. Enter a sort order number for the placement of the requirement on the request screen



10. Click **Submit**

    When creating a multi-course requirement for electives, consider creating another multi-course requirement using the same course group so students can select their alternate electives from the same list.

Core Requirements

Use a core requirement to display a set of predefined requests that all students in a grade level must take, such as core classes for 9th graders. These courses are selected automatically for students, and students cannot change selections or decline core requirements. Requests for the core requirements are added when the request page is submitted. For example, if PE9 is a core requirement, then every 9th-grade student will be automatically assigned a request for PE upon submitting the request screen. You will need to manually remove the requests for any student with special circumstances who will not be taking the course.

1. From the PowerScheduler menu, below Requesting, click **Screen Setup**
2. From the **Requests** menu, click the appropriate grade level
3. In the middle of the page, click **New Core Requirement**
4. Enter a requirement name and description
5. From the menu, choose a course group that contains the courses that fulfill the core requirement

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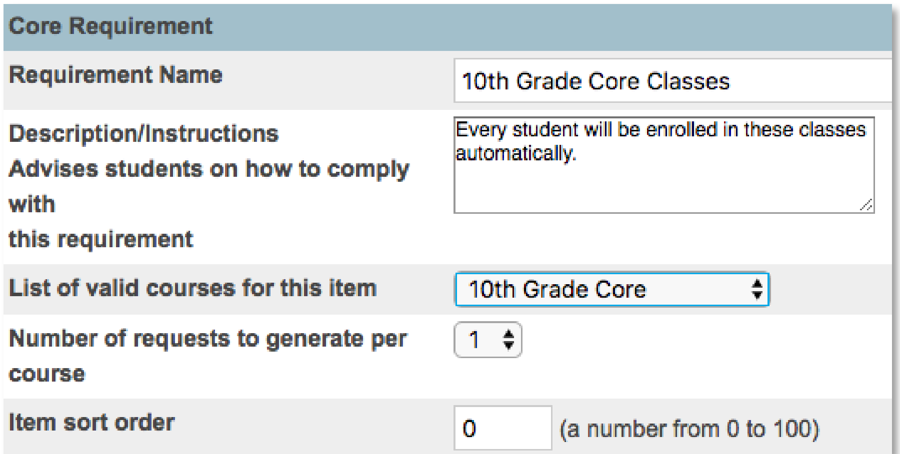
6. Enter a sort order number for the placement of the requirement on the request screen

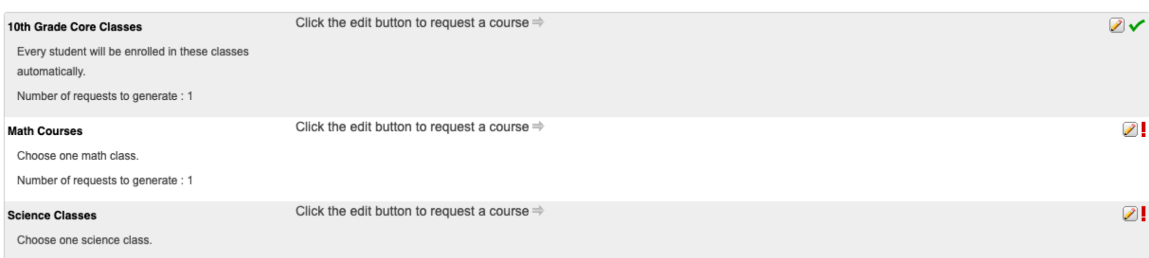


7. Click **Submit**

Previewing and Activating the Course Request Forms

Before activating the course request screens for parents and students and/or administrative staff, preview the screens to check for accuracy. Once you have previewed the screens, activate them for parents and students only, administrative staff only, or both groups. The course request screens contain separate check boxes to enable access to the registration screen for parents and students, and for administrative staff. You control who can access the screens and the length of time the screens are available by activating and deactivating the screens.

1. On the Start Page, click **PowerScheduler**
2. Below Requesting, click **Screen Setup**
3. From the **Requests** menu, click the appropriate grade level
4. Next to PowerSchool Admin Portal, click **Preview Student Registration Screen**



5. Review the request form

   Click the **Edit** icon to edit the course requests for that requirement. The green check mark confirms a selection or signifies an optional requirement. The red exclamation mark indicates that the student has not selected a course yet to satisfy that requirement.

6. Navigate back to Screen Setup to make changes or to activate the screens for student and/or staff use

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7. Check **PowerSchool Admin Portal** and/or **PowerSchool Student and Parent Portal** to enable access to the registration screens

   To disable access to the registration screens, repeat the process and clear the check boxes.

8. Click **Submit**

Entering Student Course Requests

You will learn three methods of entering course requests. Remember to preview and activate the request forms for each grade level so students, parents, or administrative staff members can enter requests.

Use one of three methods for collecting student course requests:

- Enter requests manually for students one at a time
- Mass add requests for groups of students
- Have students use the course request form online

Students, parents, and/or administrative staff members enter course requests using the request screens. Students and their parents enter course requests in the PowerSchool SIS Student and Parent Portals, and administrative staff members enter course requests using the Modify Future Requests student page in PowerSchool SIS or the Requests page in PowerScheduler.

Entering Course Requests in PowerScheduler

You can enter course requests manually for individual students in PowerScheduler.

1. On the Start Page, click **PowerScheduler**
2. From the PowerScheduler menu, below Resources, click **Students**
3. Search for and select a student
4. From the Search Students menu, click **Requests**
5. On the Requests tab, click **New Request** > **Associate**

   In the window that appears, select multiple courses by holding the Command key on a Mac or the Control key on a PC and then clicking each course.

6. Click **Submit**

   You cannot edit the courses in the text box. If you need to make changes, click **Associate** again.

7. Once you've selected all the requests, click **Submit**

   A list of courses appears on the Requests page.

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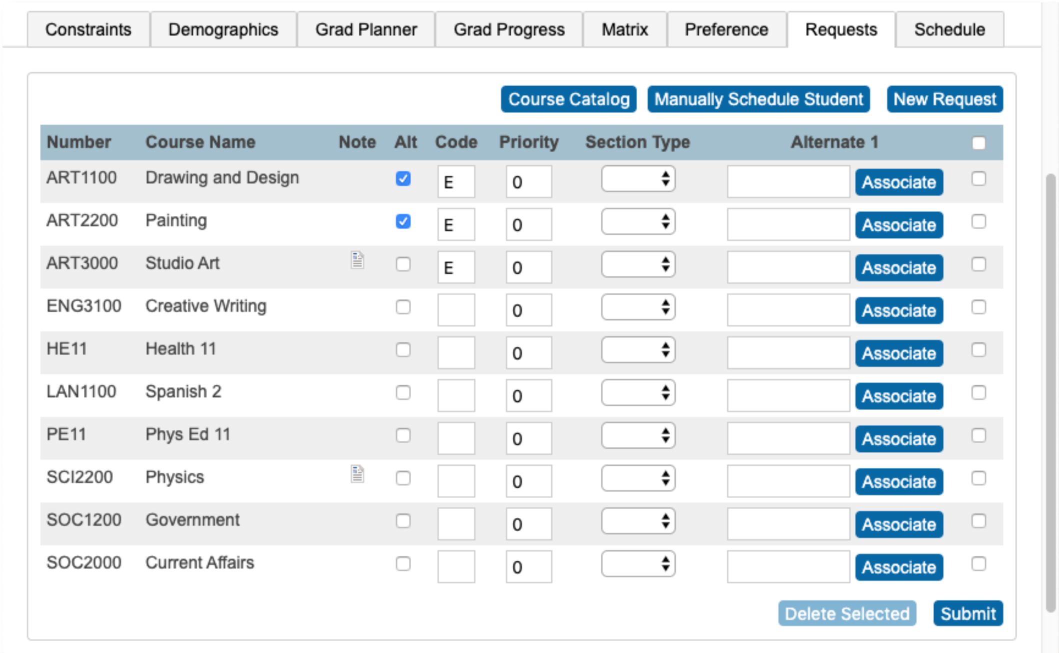
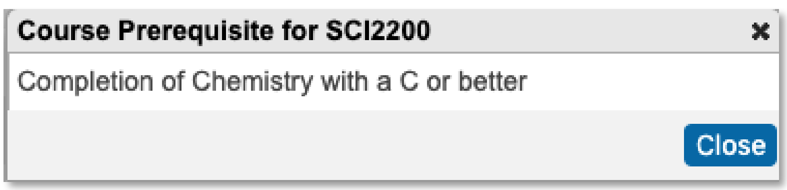
PowerScheduler: Prepare to Build – Step F



Number	Course Name	Note	Alt	Code	Priority	Section Type	Alternate 1	
ART1100	Drawing and Design		☑	E	0		Associate	☐
ART2200	Painting		☑	E	0		Associate	☐
ART3000	Studio Art		☐	E	0		Associate	☐
ENG3100	Creative Writing		☐		0		Associate	☐
HE11	Health 11		☐		0		Associate	☐
LAN1100	Spanish 2		☐		0		Associate	☐
PE11	Phys Ed 11		☐		0		Associate	☐
SCI2200	Physics		☐		0		Associate	☐
SOC1200	Government		☐		0		Associate	☐
SOC2000	Current Affairs		☐		0		Associate	☐

8. Click the **Note** icon to view prerequisite information



9. Enter ***E*** in the **Code** field for all elective courses

   Identifying elective courses is optional, but elective course requests are scheduled after required courses to optimize student schedules.

10. Check **Alt** next to any alternate elective course requests to mark the course requests as alternates for any elective courses that can't be scheduled

11. Use the **Priority** field to define alternate requests further

    Defining a course priority identifies an alternate course that needs to be scheduled before another alternate course. Enter ***1*** for the first alternate course, ***2*** for the next alternate, and so on. The higher the number, the lower the priority.

12. From the **Section Type** menu, choose an option if the course uses section types

    For example, Journalism has an honors section and a regular section. Choose **Honors** so the student won't be scheduled in the regular section of the course.

13. Click **Associate** to select an alternate for a course

    If PowerScheduler can't schedule the course, it will attempt to schedule the alternate. Selecting an alternate this way ensures the alternate course will replace only one specific course.

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14. To delete requests, check the box(es) on the right, then click **Delete Selected**

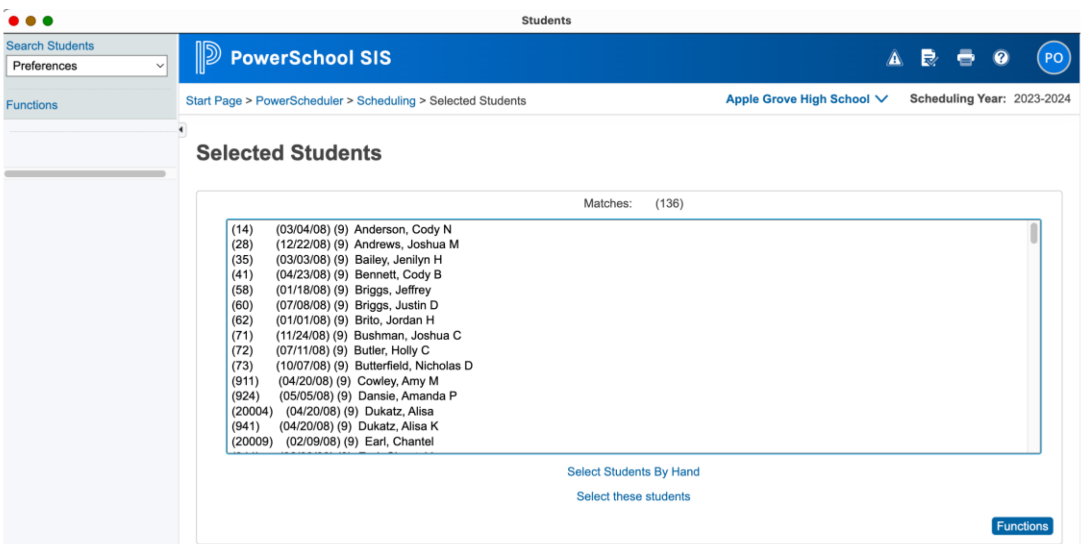
    To delete all requests at one time, check the box in the header next to **Alternate 1**, and then click **Delete Selected**.

15. Click **Submit**

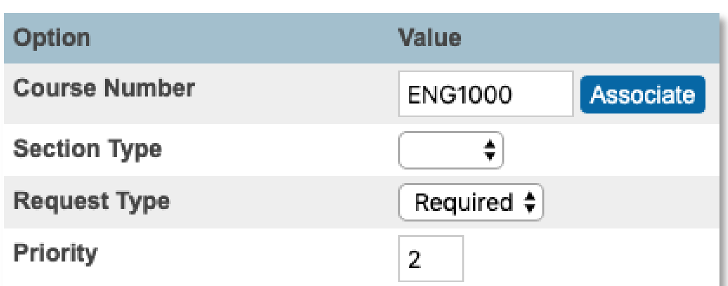
Entering a Course Request for Several Students

You can enter a course request for a group of students using the Mass Add Requests function in PowerScheduler.

1. On the Start Page, click **PowerScheduler**
2. Below Resources, click **Students**
3. Search for and select the students for whom you want to enter the course request, such as the entire 9th grade
4. On the Selected Students page, click **Functions**



5. On the Student Scheduling Functions page, click **Mass Add Requests**
6. Click **Associate** to select a course, then enter information in the fields



7. Click **Submit**
8. Repeat steps 5–7 as many times as needed

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PowerScheduler: Prepare to Build – Step F

Entering Course Requests in the PowerSchool SIS Student Portal

Students and/or parents can enter course requests online using the PowerSchool SIS Student and Parent Portals.

1. Enter your school's URL for the PowerSchool SIS Student and Parent Portals in the address field of your web browser
2. Enter your username and password, and click **Sign In**
3. Click **Class Registration**
4. Select your course requests
5. Click **Submit**

Entering Course Requests in PowerSchool SIS

You can enter, edit, or delete course requests for a student on the live side of PowerSchool SIS using the Request Management student page. Do not modify requests on the Modify Current Requests student page. Requests on the Modify Current Requests page apply to the current school year. Instead, use the Modify Future Requests page to edit student requests for the future scheduling year.

1. On the Start Page, search for and select a student
2. Click **Request Management**
3. Under the future year, click **Modify Future Requests**
4. Select, edit, or delete the student's course requests
5. Click **Submit**

Finding and Resolving Invalid Requests

Student requests may be identified as invalid for a variety of reasons. For example, you may define some prerequisites based on the assumption that students will complete or pass the prerequisite course. If students don't complete or pass the prerequisite courses, their requests for those courses become invalid. Additionally, students who change schools during scheduling season may have course requests at their old school and/or requests for courses that are not offered at their new school. You can use functions on the live and scheduling side to find and resolve invalid requests.

Invalid Requests Group Function

After mass adding requests or manually adding requests, perform the Invalid Requests group function on the live side. The Invalid Requests function collects all the requests a selection of students has made for the specified school year and re-evaluates each request against the course prerequisites and recommendations.

1. On the live side of PowerSchool SIS, on the Start Page, select a group of students
2. Click the **Select Function** arrow and, from the Scheduling section, choose **Invalid Requests**
3. Select **Re-evaluate and display new results**
4. Select the future scheduling year
5. In the Courses area, choose to evaluate requests for all courses, courses in a given department, or for a certain course

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6. Click **Submit**
7. Click **Make these students the current selection**
8. Select the first student and navigate to his or her Request Management page
9. Click **Modify Future Requests**
10. Make the necessary changes to the student's requests and save the changes

Resolve Invalid Requests Function

When students change schools during scheduling season, their requests may become invalid because the requests are associated to the wrong school or the wrong course. Use the Resolve Invalid Requests function to replace these requests and avoid validation errors.

1. Navigate to the scheduling side by clicking **PowerScheduler**
2. From the PowerScheduler menu, under Tools, click **Functions**
3. Click **Resolve Invalid Requests**

   Optionally, use the Filter section to filter the requests by course name, course number, status, school, and/or student name, and then click **Apply.** Sort the requests by clicking the name of a column.
4. Resolve the invalid requests by deleting the requests, changing an invalid school, or changing an invalid course

   To remove the invalid requests, check the requests, then at the bottom of the page click **Delete Requests**. Then click **Confirm Delete Requests**.

   To resolve requests that are invalid because of a change in school, check the requests, then at the bottom of the page click **Change School**.

   To resolve requests that are invalid because they apply to an invalid course, check the requests, then at the bottom of the page click **Change Course**. Assign a new course to the requests.

Managing Recommendations and Prerequisites

Unfulfilled course prerequisites stop a student from requesting a course. Course requirements include taking or passing a prerequisite course, having a teacher recommendation, or a combination of these requirements. Define course requirements in the Course information found in School Setup or District Setup (Step B).

When students select from a course group on the request screens, they check the classes they want to take. However, students cannot check classes if they haven't met the prerequisites. For example, a new 10th-grade student wants to take Speech. However, he can't select the course because he hasn't met the English teacher recommendation requirement. You can contact the English teacher for a recommendation for the new student, then enter a recommendation on the teacher's behalf on the student's Request Management page. On the student's Request Management page, click **Manage Recommendations** > **Create New Recommendation**.

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Additionally, you can use the Override Prerequisites function to allow a student to request a course even if the prerequisites have not been met or use the function to validate a recommendation that was entered by an administrative staff member instead of a teacher. You can override a prerequisite by navigating to the student pages and clicking **Request Management** > **Override Prerequisites**.

Course Request Reports and Tools

Once you or the students have entered all course requests, use the following reports and request tools to analyze and confirm the success of the request process. To find the reports, navigate to the PowerScheduler menu and click **Reports**.

- Course Request Tally report – This report lists the number of primary and alternate student course requests by course. A course must have at least one request to appear on the Course Request Tally. Consider using this report to see how many teacher assignments you'll need for a course, to verify that students have requested a required course, and to determine if a low-enrollment course can be offered. Click a column heading to sort the report by course number, course name, type of request, and total requests.
- Requests by Course report – This report lists each course in your scheduling catalog and the names of students who have requested that course. Consider using this report to make sure the right students are requesting the right courses and to verify that student requests were entered properly.
- Requests by Student report – This report lists each student alphabetically along with the names of the courses that the students requested. Consider using this report to see which courses students have selected, to verify that student requests were entered properly, and to investigate students who have too many or too few requests.
- Student Request Tally report – This report lists the number of requests each student has made. Consider using this report to verify which grade levels have completed registration and to identify students who have entered too many or too few requests. Click a column heading to sort the report by student last name, type of request, or total requests.

Summary

You have completed a critical step in the Prepare to Build process. Student course requests are the key to scheduling. In Step F, you:

- Entered course recommendations in the PowerSchool SIS Teacher Portal and edited them in PowerSchool SIS
- Created course groups for course request screens
- Set up single, multi-, and core requirements for student request screens
- Previewed and activated course request screens
- Entered individual and group student course requests in PowerScheduler, the PowerSchool SIS Student and Parent Portals, and PowerSchool SIS
- Learned about creating recommendations, finding invalid requests, and overriding course prerequisites
- Found course request reports and tools to analyze the request process

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PowerScheduler: Prepare to Build – Step F

While completing the scheduling process, the PowerSchool SIS **Help** menu is another great source of information. On any PowerSchool SIS or PowerScheduler page, click the **Help** icon to search for information about PowerScheduler. Next, continue in the Prepare to Build process with Steps G and H.

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PowerScheduler: Prepare to Build – Steps G and H

PowerScheduler: Prepare to Build – Steps G and H

You are more than halfway through your preparation to build a master schedule for next year. So far, you have created a build scenario and a scheduling course catalog, defined scheduling parameters, rooms, and student information, and have entered student course requests. Now you are ready to define course and teacher information.

A. Auto Scheduler Setup
B. Create the Scheduling Course Catalog
C. Define Schedule Parameters
D. Define Rooms
E. Define Student Information
F. Enter Student Course Requests
G. Define Course Information
H. Define Teacher Information
I. Define Constraints
J. Build Course Rank
K. Validate and Prepare to Build

Step G: Defining Course Information

Earlier in your preparation, you created new courses to offer next year and associated them with the appropriate school(s). However, there is more course information to define than just adding a new course to the catalog. You also need to define course preferences for scheduling, such as build types, periods per meeting, and course maximums. Defining course information is the most complex set of preferences for any item in PowerScheduler. The list of items to set up on the Preferences tab on the Course Information page is long, but you likely won't need to complete every field for every course.

Define Course Preferences

To define course preferences, do either of the following or a combination of both methods:

- Enter preferences for each course manually
- Use the **Auto Fill Course Information** function to enter preferences for selected courses at the same time

Defining Course Preferences Manually

Although all schools can define course preferences manually, the number of manual changes to make will vary from school to school and year to year. Smaller schools may choose to enter course preferences one at a time. Larger schools may use the Auto Fill or Auto Generate functions to complete the Preferences page, then make individual changes.

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PowerScheduler: Prepare to Build – Steps G and H

The Preferences tab on the Course Information page displays several static fields that you cannot change in PowerScheduler. The static fields are copied from the Master Course List on the live side of PowerSchool SIS. You can change them only on the live side.

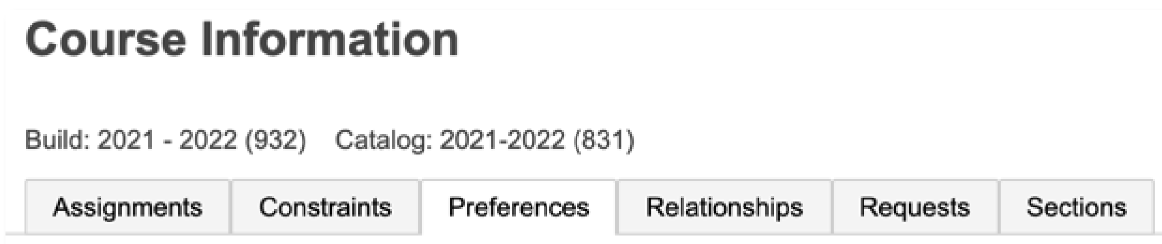
The **Preferences** tab is divided into seven sections: General Information, Scheduling Preferences, Sections Defined, Labs Defined, Room Requirements, Load Options, and Substitute Information. Since each course has different requirements, you may fill out the information in these sections in a number of different ways.

Typically, you will fill out the Scheduling Preferences and Sections Defined sections for every course. The Scheduling Preferences section includes the field to define the department associated with a course and a field to define the maximum enrollment in each section of the course. The Sections Defined section includes options to define many section characteristics, including the number of sections to offer, repeats in the term or year, and the valid start periods, terms, and days for each course.

Start the process of manually entering course preferences on the scheduling side of PowerSchool SIS.

1. On the Start Page, click **PowerScheduler**
2. From the PowerScheduler menu, below Resources, click **Courses**
3. From the menu on the left, click a course name

   The tabs on the Course Information page include:



- The **Assignments** tab mirrors the Teacher Assignments tab and lists how many sections of the course the teacher will teach
- The **Constraints** tab lists any constraints entered for the course
- The **Preferences** tab is the default tab on the Course Information page and where you enter the majority of the manual scheduling settings
- The **Relationships** tab where you enter any relationships between the course and other courses
- The **Requests** tab lists all requests submitted for the course
- The **Sections** tab lists the available sections of the course

  At this point in the Build process, the Sections tab will be empty; you won’t see sections until after the Build. Therefore, don’t work from the Sections tab; use the Assignments tab instead.

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PowerScheduler: Prepare to Build – Steps G and H

The following steps focus on course preferences. Note: Any settings you add to the Preferences tab are not saved until you submit the page. If you switch to another tab on the Course Information page, your settings will be lost. Click **Submit** after each section to ensure your settings are saved.

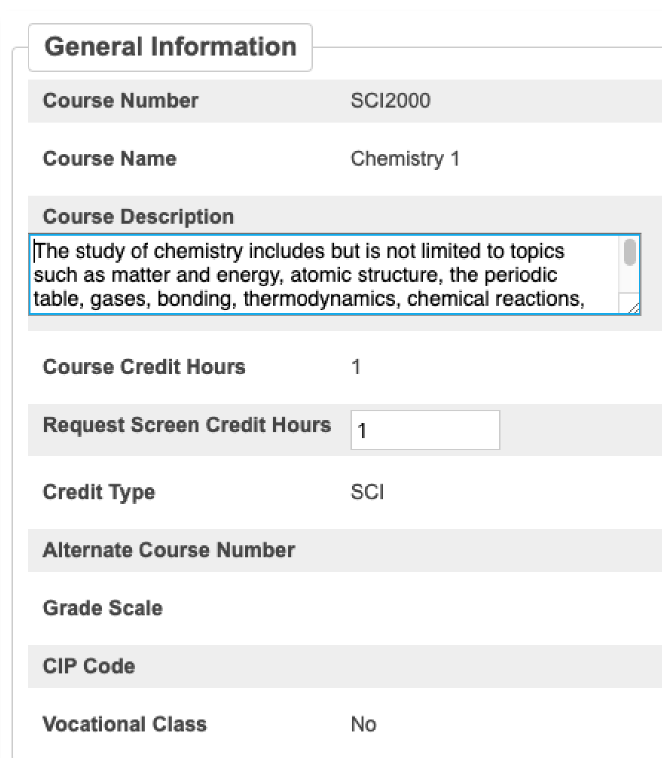
General Information

1. On the **Preferences** tab of the Course Information page, add a detailed description of the course

   When a course description has not been entered on the live side of PowerSchool SIS, enter or copy and paste a description in the **Course Description** field. This course description will appear on the course request screens.
2. Modify the value in the **Request Screen Credit Hours** field, if necessary, to represent the number of credit hours that students will request when selecting this course

   For example, Chemistry is a year-long class. Students earn 0.5 credit hours first semester, and another 0.5 credit hours second semester. When they select Chemistry on the course request screen, students will check Chemistry only once but the request will count for both semesters of credit.

   The rest of the fields in the General Information section are static; you can change them only on the live side of PowerSchool SIS.
3. At the bottom of the Course Information page, click **Submit** to save your changes



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PowerScheduler: Prepare to Build – Steps G and H

Scheduling Preferences

1. In the Scheduling Preferences section, check **Schedule This Course** if the course will be offered next year

   PowerScheduler ignores any courses that don't have **Schedule This Course** checked.

2. Check **Use The Course For Lunch** if the course is a lunch course

   If your school does not schedule lunch as a course, leave this setting clear for all courses.

3. Check **Exclude On Report Cards/Transcripts** if you want to exclude the course on students' report cards and transcripts
4. To enter a Department, click **Associate**
5. In the Choices Dialog window, select a department and click **Submit**

   Be sure to associate a department with each course. If the course is already associated with a department on the live side, that association will be copied over to PowerScheduler when you create the course catalog. Click **Associate** again to change your selection or click **Department** to edit and create new department codes.

6. From the **Build Type** menu, choose **Standard**

   The majority of courses are **Standard**. However, a course could fit one of two other Build Type options: **Lab** and **LabFloat**. If the course has a lab that meets one extra period following the class on a specific day in your cycle, choose **Lab**. If the course has a lab that meets one extra period but doesn't need to occur right after the course in the schedule, choose **LabFloat**. If the lab is to have a separate grade or is to appear as a separate grade on a report card, define the lab as a separate course. Then, create a course relationship to associate the same teacher with the main course and the Lab course.

7. Enter the maximum number of students who can be enrolled in each section of the course in the **Maximum Enrollment** field

   When you created rooms, you entered the maximum number of students who can fit in the room. When you define course preferences, make sure the maximum enrollment of the course is equal to or less than the maximum number defined in the rooms associated to the department of the course.

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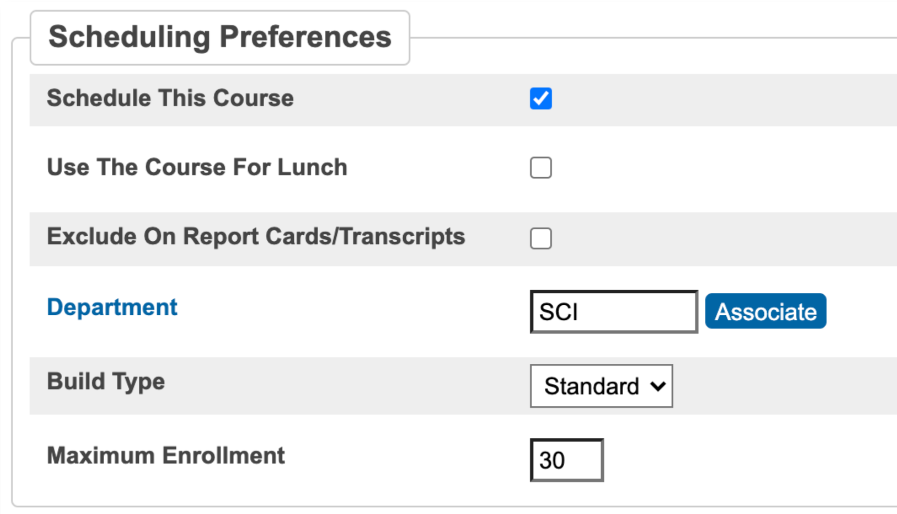
8. At the bottom of the page, click **Submit** to save your changes and then click **Back**



Sections Defined

1. In the Sections Defined section, complete the **Target Number of Sections to Offer** field manually, or use the separate **Calculate Target Number of Sections** function

   Define the number of sections for each course based upon the student course requests and maximum class enrollment size. You can enter a number of sections manually or click **PowerScheduler** > **Functions** > **Calculate Target Number of Sections to Offer** to calculate the number of primary student requests for the course divided by the maximum enrollment for the course.

2. When you create teacher assignments in Step H, the number in the **Number of Teacher Assignments** field will be updated automatically
3. The **Periods Per Cycle** field is static, and it is filled in automatically based on the **Periods Per Meeting** and **Frequency** field values
4. In the **Periods Per Meeting** field, enter the number of periods the course meets during one school day (typically ***1*** unless your school offers courses that meet for ***2*** or more periods per day)
5. In the **Frequency** field, enter the number of times during the cycle the course meets

   For example, if you have a two-day cycle, and the course meets one of the two days, enter ***1***. If you have a two-day cycle and the course meets every day, enter ***2***. If you have a one-day cycle, then most course frequencies will be 1.

6. The "Terms per year" field is static, and it is calculated based on the valid terms selected in the build scenario
7. Check **Allow Student Repeats in the Same Term** if students can take the course multiple times in the same term

   Students may repeat certain elective courses in the same term, such as **Study Hall**.

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PowerScheduler: Prepare to Build – Steps G and H

8. Check **Allow Student Repeats in Different Terms** if students can take the course again in another term

   Students may repeat certain semester courses in different terms, such as **Choir**.
9. Leave the **Balance Terms** check box clear

   The **Balance Terms** check box balances the number of sections across the valid terms for courses with multiple sections. The PowerScheduler engine will automatically place the sections in the appropriate terms based on the course preferences you set.
10. Leave the **Valid Start Periods** check boxes clear for maximum flexibility

    If you don't select any periods, PowerScheduler will place the course sections in any period. The **Valid Start Periods** check boxes are very restrictive and specify when you must schedule a course. For example, if you must schedule Band for 1st period, select **Period 1**. The scheduling engine will schedule Band only during 1st period.
11. For Valid Terms, click **Associate**
12. In the Choices Dialog window, select the appropriate terms, then click **Submit**

    When choosing valid terms, select the full year term for year-long classes, and Semester 1 and/or Semester 2 for semester-long classes. Do not select a semester and the year long term together; if you have a course that is offered as both a year-long course and a semester-long course, create separate course numbers for each.
13. In the **Valid Day Combinations** field, enter the days the course is available for scheduling if your school has multiple days in its cycle

    For example, if your school has an A and B day, you could enter ***A*** to prevent the course from being scheduled on the B day. Leave the field blank if you'd like the engine to consider all day combinations.

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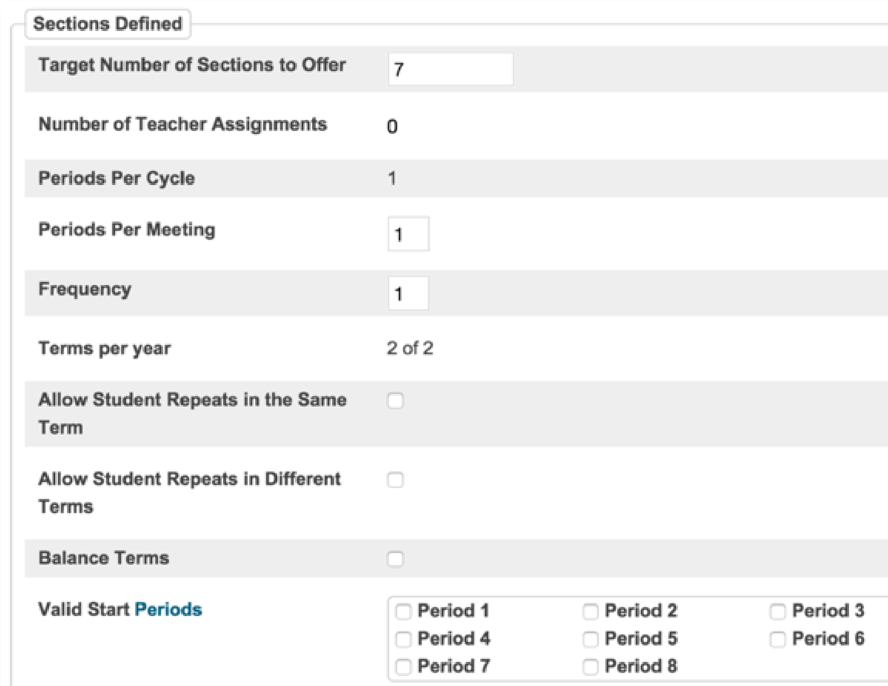
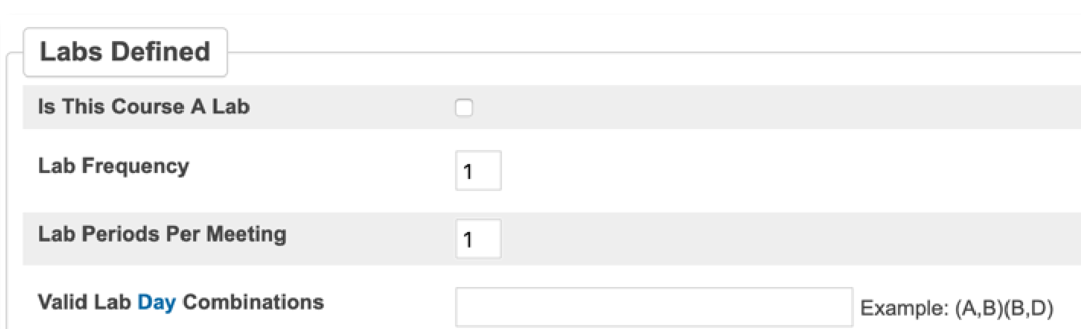
14. At the bottom of the page, click **Submit** to save your changes and then click **Back**



Labs Defined

1. In the Labs Defined section, check **Is This Course A Lab** if the course has a lab

   If you chose the Lab or LabFloat Build Type for the course, you must check **Is This Course A Lab**. If the course is not a lab, or the course includes instructional labs as part of the course, then you don't need to complete the Labs Defined section.
2. When appropriate, in the **Lab Frequency** field, enter how many labs are in the cycle
3. When appropriate, in the **Lab Periods Per Meeting** field, enter how many periods each lab will meet per day
4. In the cycle in the **Valid Lab Day Combinations** field, enter the days the lab will meet if your school has a multiple-day cycle



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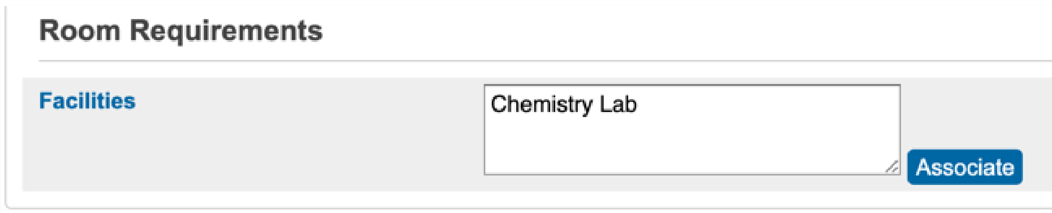
5. In the Room Requirements section, if the course uses Facilities such as a computer lab, click **Associate**
6. In the Choices Dialog window, select a facility, and click **Submit**

   For example, associating the Chemistry Lab facility ensures that Chemistry will be taught in that room, as long there is a room with that same facility. If a room doesn't have that same facility associated, you will get an error in the validation. If the course does not need to have a facility associated with it, leave the Facilities field blank.

7. To save updated information, click **Submit** at the bottom of the page and then click **Back**

Load Priority

1. In the **Load Priority** field, enter a load priority for every course

   Use the **Load Priority** to load students into higher priority courses first. For example, AP Chemistry is an advanced class with only one section offered next year. Therefore, AP Chemistry is more difficult to schedule, and it needs a higher priority number. You can enter numbers from 1 to 99, but experience has shown that these values (that follow the pattern of the original number doubled plus one) work best: 1, 3, 7, 15, 31, and 63. The lower the number, the higher the priority. Electives typically have a higher number so that the engine schedules the required courses first and electives last.
2. From the **Load Type** menu, choose **Academic, Elective, or Alternate**

   The PowerScheduler system uses load type to keep courses balanced across terms. This way, students won't have all their academic courses scheduled for first semester and all their elective courses second semester.
3. For **Balance Priority**, choose one of the following options as a secondary priority for the course when loading schedules:
   a. Choose **Section** to keep the number of students balanced across sections
   b. Choose **Gender** to keep the number of males and females balanced in each section
   c. Choose **Grade** to keep the grade levels balanced in each section
   d. Choose **EthnicCode** to keep the ethnicities balanced in each section

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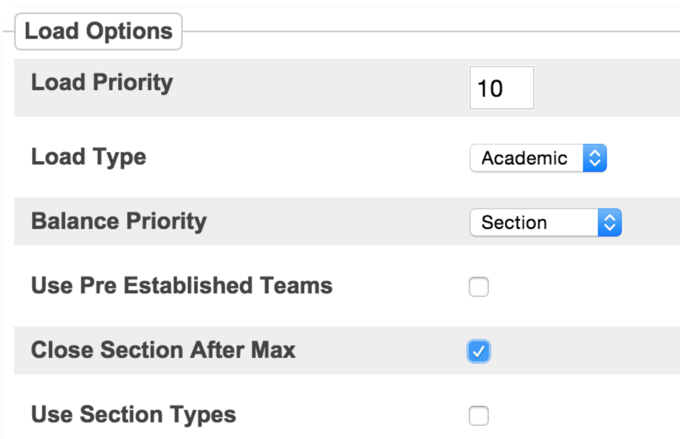
   e. Choose **House** to keep the members of each house balanced in each section

      The primary priority for loading is the value you entered in the load priority field. The default Balance Priority is Section, but you may choose to balance certain courses by gender, grade level, ethnicity, or house depending on your school's needs and regulatory compliance requirements.

4. Check **Use Pre Established Teams** if your school uses teams
5. Check **Close Section After Max**

   If the check box isn't selected, a section could be overfilled.

6. Check **Use Section Types** if the course uses section types
7. Click **Submit** and then click **Back**



Substitute Information

1. In the Substitute Information section, check **Don't Allow Student Substitutions** if the course cannot be substituted with another course

   Leave the **Don't Allow Student Substitutions** check box clear if you want to allow substitutions. If you check **Don't Allow Student Substitutions**, don't complete the remaining fields on this page.

2. If this course has a global substitution, click **Associate** next to the Global Substitutions 1 field
3. In the Choices Dialog window, select the substitute course, and click **Submit**

   Using global substitutions is optional. If a global substitute is associated to a course, then any time it's not possible to schedule a student in that course, PowerScheduler will attempt to schedule the student in the substitute course instead. For example, the number of available seats in AP Calculus is limited. If a student can't get AP Calculus, she could be scheduled in Calculus as substitute. When you create a global substitution, it will apply to any and every student who can't get the original course.

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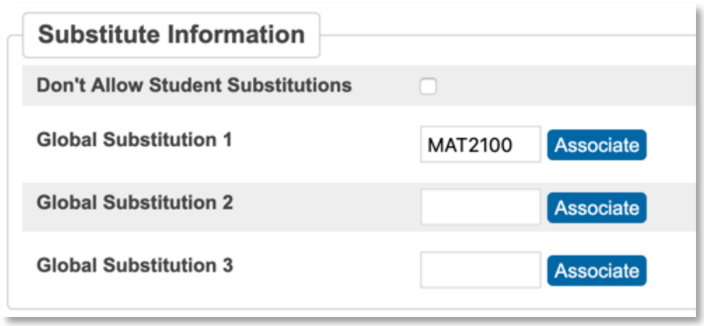
4. Use the Global Substitution 2 and 3 fields to define subsequent substitutes, if needed



5. Click **Submit**

Automatically Filling Course Information

The **Auto Fill Course Information** function enters course information simultaneously for all courses in your scheduling catalog, or for a selection of courses. Be careful when using the Auto Fill Course function, since preferences vary by course. After completing the Auto Fill function, use the **Course List** report to view the information you auto-filled, as well as to locate information that may be missing. Follow the instructions below to auto-fill information for a group of courses, such as all the courses in the English Department. If you want to auto-fill information for all of the courses in your scheduling catalog, begin with step 9 in the following instructions.

1. On the Start Page, click **PowerScheduler**
2. Below Tools, click **Functions**
3. Then click **Update Selections**
4. From the **Current Table** menu, choose **ScheduleCourseCatalogs**
5. Click **Select all [xx] records in this school**
6. From the **Search ScheduleCourseCatalogs** menu, choose **CourseCatalogID**
7. In the field, enter the course catalog ID for this year, such as ***881***

   If you are unsure of the course catalog ID, open another tab in PowerScheduler and click **Course Catalogs**. The catalog ID is listed after the current catalog year.
8. Click **Search all [xx] records in this school**
9. Do one of the following:
   a. Click **Select Records by Hand**, select the courses you want to auto-fill with the course information, and click **Submit**
   b. Use the **Search ScheduleCourseCatalogs** fields to search for and select courses that meet specified criteria, such as all courses in the English Department, for example **Sched_Department = *ENG*** and then search within the current records only
10. Below Tools, click **Functions** > **Auto Fill Course Information**
11. Choose to apply the changes to all courses or those you just selected

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12. Complete all the fields that need to be auto-filled for the courses you selected

    The information you enter will vary depending on the group of courses you selected. Review the information in the Defining Course Preferences Manually section.

13. Click **Submit**

14. Run the Course List report to verify the information you auto-filled: **PowerScheduler** > **Reports** > **Course List** > **Submit**

Define Course Relationships

After you enter course information, you can define relationships between courses. For example, if a teacher instructs several different foreign language courses at the same time and in the same room (such as Spanish III and Spanish IV), define a course relationship to cause the courses to be scheduled together.

Course relationships introduce an additional set of rules into the scheduling system. That way, courses that are related are not scheduled automatically into the first available spot in the master schedule or student schedules, but instead are scheduled in relation to each other.

Use relationships to ensure student schedules are loaded correctly and to ensure the master schedule is built correctly for your school. If you define a relationship for one course with another course, you do not need to define the relationship for both courses. For example, if you make Chemistry a prerequisite to Physics, you do not need to also make Physics a post-requisite to Chemistry. One relationship between the two courses is sufficient.

You can create several types of course relationships in PowerScheduler, but the more relationships you create, the more complicated the schedule becomes. Relationships apply to either the build (master schedule) or the load (student schedules).

Use any of the following course relationships:

- Is Blocked for Building With – Courses that need to be grouped together in the schedule to share equipment or facilitate collaboration, for example pottery and ceramics classes that share the use of a kiln, or medieval literature and medieval history classes in which students may collaborate on projects together

  This relationship requires that the relationship be defined further with a Relationship Code to define the way the courses should be grouped in the schedule, such as Simultaneous, Before, After, or Opposite Days. More information about the Relationship Codes is provided in the next section.

- Is Blocked for Building With – Courses that must be related to one another in the schedule such as a course that needs to occur before another course
- May Be Built Concurrent With – Courses that need to meet at the same time, in the same place, and are taught by the same teacher such as Independent Study courses or higher levels of similar courses with low enrollment
- Has a Load Coreq of – Courses that need to be requested together and scheduled during the same term
- Has a Load Postreq of – Courses that need to be scheduled the term after the student takes the related course

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PowerScheduler: Prepare to Build – Steps G and H

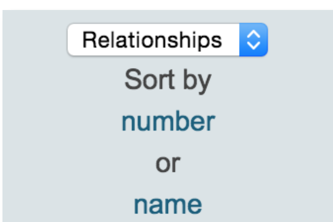
- Has a Load Prereq of – Courses that need to be scheduled before the student takes the related course

  The Coreq, Postreq, and Prereq relationships only relate to the current scheduling year. PowerScheduler does not check historical data for previous courses.
- Must Not Load Coreq With – Courses that cannot be scheduled during the same term
- Must Load Distinct With – Courses that cannot be loaded into overlapping terms (usually used in schools that use both semesters and trimesters)
- Must Load the Term After – Courses that should be loaded after the related course in sequential terms
- Must Load the Term Before – Courses that should be loaded before the related course in sequential terms

Defining Course Relationships

The following steps outline how to create a "Blocked for Building With" relationship that requires a Relationship Code to define the relationship in more detail. Relationship codes do not apply to any other type of relationship, so skip step 7 in the instructions below for all relationships except "Blocked for Building With."

1. On the Start Page, click **PowerScheduler**
2. Below Resources, click **Courses**
3. From the menu at the top of the course list, choose **Relationships**

4. Click the name of the course for which you want to define a relationship, and click **New**
5. Click **Associate** and select a course to relate to the course you originally selected
6. Choose a relationship type from the menu

   Keep in mind, the Prereq relationship type is separate from the prerequisite rules and notes entered earlier.
7. If you choose **Is Blocked for Building With**, choose a code from the Relationship Code menu

   Block relationships build sections of courses and create links between the sections. For example, the section link ensures that the same students scheduled into the AP History section will be scheduled into the AP English section. Use the Block relationship to set parameters for the build and use the section link for the load. Use these relationship codes to define the Block relationship:

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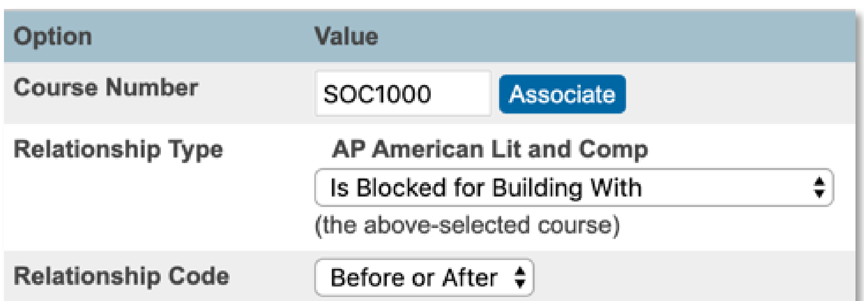
- **Simultaneous** – Schedule the blocked course at the same time as the current course; the two courses that will be scheduled simultaneously do not need to have the same number of sections or teachers to be scheduled at the same time
- **Before or After** – Schedule the blocked course either before or after the current course in reference to the periods in your school day (creates a section link)
- **Before** – Schedule the current course before the blocked course in reference to the periods in your school day (creates a section link)
- **After** – Schedule the current course after the blocked course in reference to the periods in your school day (creates a section link)
- **Different Terms** – Schedule the blocked course on the same day and period as the current course, but in a different term (creates a section link)
- **Combine Into** – Schedule the blocked course at the same time as the current course when all parameters match between the two courses; the number of sections and teachers for the two courses must be the same
- **Opposite Days** – Schedule the blocked course on an opposite day from the current course in a multiple-day schedule, such as an A/B day schedule (creates a section link)
- **Section** – Schedule the blocked course with the same students in each section as the current course (creates a section link)



8. Click **Submit**
9. To verify that the course relationships are correct, under Tools, click **Reports**
10. Then click **Course Relationships**
11. If needed, select the report output locale, such as **English**, and click **Submit**

Step H: Defining Teacher Information

Define teacher scheduling information for every teacher who instructs at least one course at your school. You can also assign teachers to the courses they will teach next year. Remember, in order to schedule a teacher, you must make the teacher active in PowerScheduler by checking **Schedule This Teacher**.

You can enter teacher information and assignments manually, or auto-fill teacher information and auto-generate teaching assignments.

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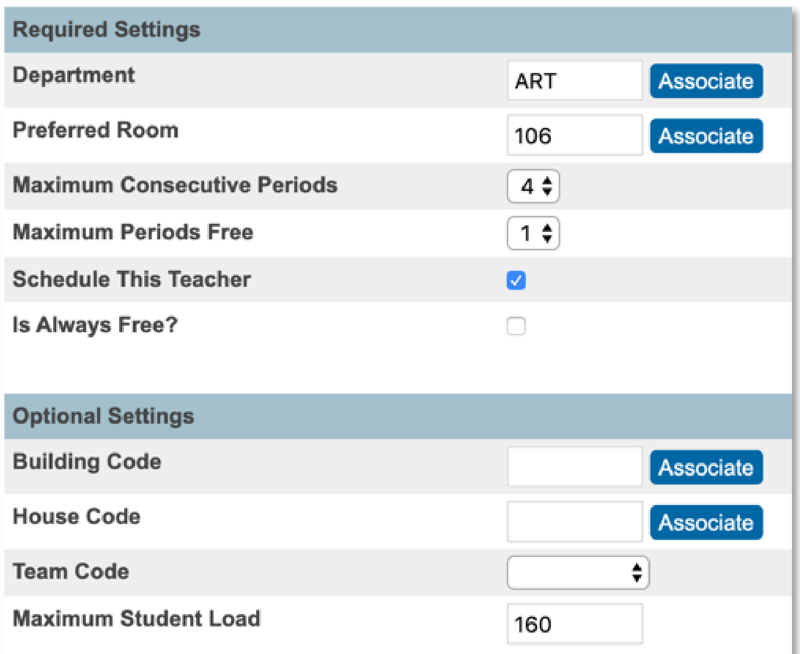
PowerScheduler: Prepare to Build – Steps G and H

Making Teacher Information Available in PowerScheduler

Before you enter teacher assignments, make your teachers' information available in PowerScheduler. Begin on the PowerSchool SIS live side.

1. On the Start Page, click **Staff Search**
2. Search for and select the teacher
3. Click **Schedule Setup**
4. Check **Schedule This Teacher**

   If a teacher won't be returning next year, clear the **Schedule This Teacher** check box.



5. Click **Submit**

   You don't have to complete this field manually for every teacher. One option is to use the **Set Staff Field Value** group function on the live side of PowerSchool SIS. First change the term you are working in to the next school year and then click **Staff Search**. Select your teachers, click the **Select Function** arrow, and click **Set Staff Field Value**. Select the field **Sched_Scheduled** for the field to change and enter ***True*** for the new field value. Click **Submit** to save the changes. Review the information that will be changed and click **Submit** to confirm the changes.

Entering Teacher Information Manually

Teacher scheduling preferences are unique to each teacher, so some schools choose to enter the information for one teacher at a time.

1. On the Start Page, click **PowerScheduler**

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PowerScheduler: Prepare to Build – Steps G and H

2. Below Resources, click **Teachers**
3. Choose **Preferences** from the menu at the top of the teacher list and click a teacher's name
4. For Department, click **Associate** to associate the teacher with a department
5. Select a department and click **Submit**
6. For Room, click **Associate** to associate the teacher with a room, but note that this is a preference only and not a guarantee
7. Choose a value from the **Maximum Consecutive Periods** menu, as mandated by your region, district, or school administrators

   The **Maximum Consecutive Periods** menu defaults to **1**. Choose the maximum number of periods possible to give the scheduling engine the most flexibility.
8. Verify that **Schedule This Teacher** is selected

   If a teacher won't be returning next year, clear the **Schedule This Teache**r check box.
9. Leave the **Is Always Free** and **Schedule For Lunch** boxes clear in most cases.

   If you check **Is Always Free**, the system can schedule this teacher for an unlimited number of courses during the same period. Use this option when the students and teacher do not have to be physically present in the room at the same time, like home-bound students, release-time students, and teachers' aides, or for Special Education teachers who may teach multiple courses in the same room at the same time.

   If your school schedules formal lunch sections as part of the master schedule (instead of scheduling lunch as part of the bell schedule), check **Schedule For Lunch** to assign the teacher to supervise during lunchtime or to schedule time for the teacher to each lunch.
10. Complete the remaining fields if your school uses buildings, houses, and/or teams

    The **Maximum Student Load** field is optional and entering a value in this field does not prevent the teacher from being over-scheduled. You can run post-load reports that will indicate which teachers have been assigned more students than the value you entered in this field.

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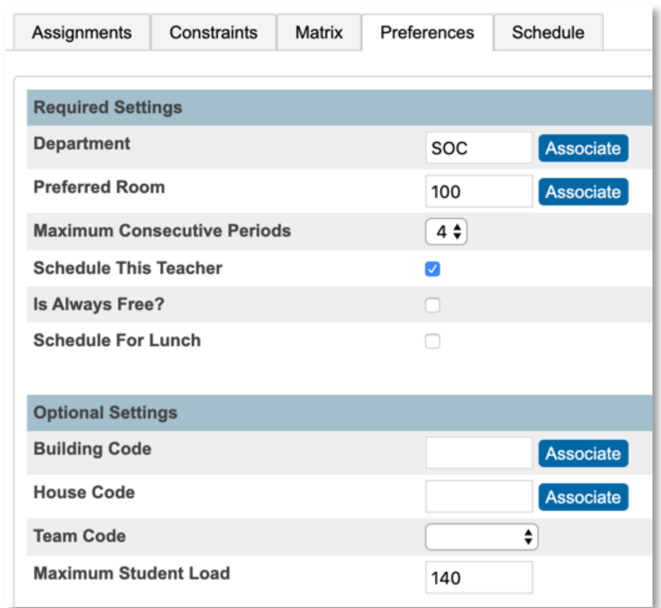
PowerScheduler: Prepare to Build – Steps G and H



11. Click **Submit**

Automatically Filling Teacher Information

Use the **Auto Fill Teacher Information** function to fill in some teacher information simultaneously for all teachers or for a group of teachers.

1. On the Start Page, click **PowerScheduler**
2. Below Tools, click **Functions** > **Update Selections**
3. From the **Current Table** menu, choose **Teachers**
4. Click **Select all [xx] records in this school**
5. Do one of the following:
    a. Click **Select Records by Hand**, select the teachers you want to auto-fill with teacher information, and click **Submit**
    b. Use the **Search Teachers** fields to search for and select teachers who meet specific criteria, such as all teachers in the English Department by using **Sched_Department = *ENG***, and then click **Search within the current [xx] records only**
6. Below Tools, click **Functions** > **Auto Fill Teacher Information**
7. Then choose whether to apply the changes to all teachers or those you just selected

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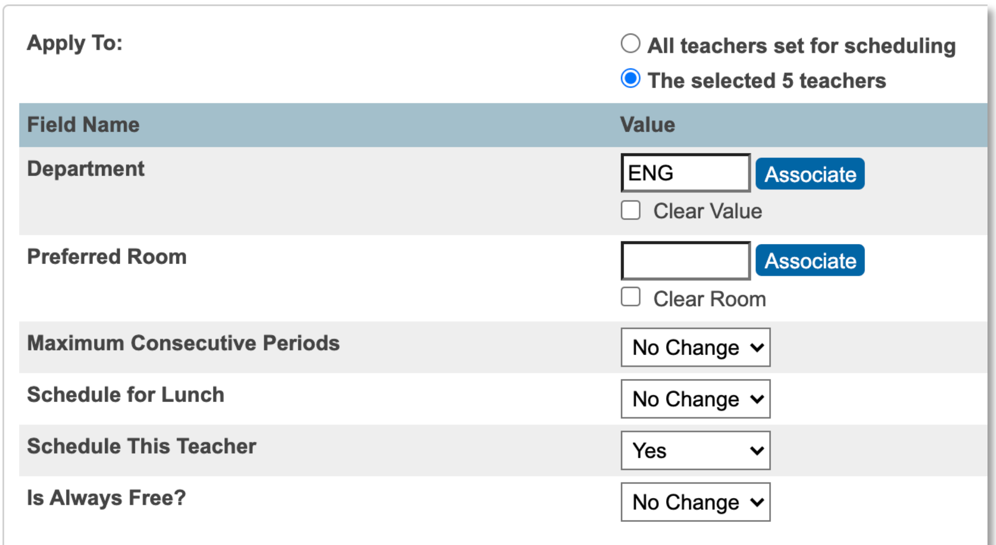
8. Complete the fields you want to auto-fill for the selected teachers

   For example, click **Associate** next to the Department field to assign the teachers to the English Department. Ensure that **Yes** is the current value for the **Schedule This Teacher** menu.



9. Click **Submit**

Enter Teacher Assignments

Entering teacher assignments is an important part of the scheduling process. Teacher assignments define which courses and how many sections of each course a teacher will instruct. You can add teacher assignments at the course level using the **Assignments** tab or at the teacher level using the following steps. When you enter or edit an assignment for a teacher or a course, PowerScheduler updates the information automatically in both places.

Run the Course Request Tally report often to help you decide on the appropriate number of assignments for each teacher. PowerScheduler will build the master schedule based on teachers' course assignments and will organize the sections in a way that best meets the majority of the students' course requests.

Entering Teacher Assignments Manually

Enter teacher assignments manually using the **Assignments** tab.

1. From the PowerScheduler menu, below Resources, click **Teachers**
2. From the menu at the top of the teacher list, choose **Assignments**
3. Click a teacher's name, and click **New**
4. For Course Number, click **Associate** to select the course you want to assign to the teacher
5. Choose a section type if your school uses section types (set up in Step C)

   Choosing a section type is optional.

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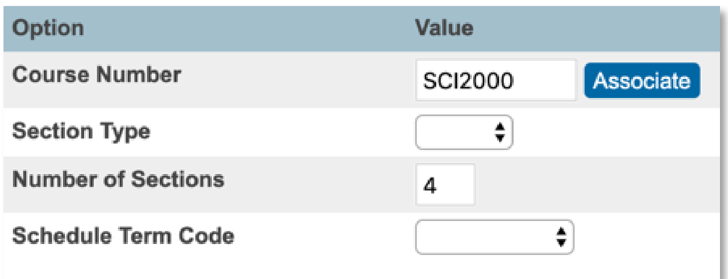
PowerScheduler: Prepare to Build – Steps G and H

6. Enter the number of sections for the teacher

   Run the Course Request Tally report to view the number of students who have requested the course to determine the number of sections needed.

7. Choose the term code from the menu

   Choosing a schedule term code is optional. If you don't choose a term, the assignment defaults to the valid terms selected for the course. For example, if the course has Valid Terms of S1 and S2, and you leave Term blank, the system will choose either S1 or S2. If you want to specify a term, choose one from the menu. Specifying a term forces the sections into that semester, limiting the flexibility of the scheduling engine. For maximum scheduling flexibility, leave the term code blank.



8. Click **Submit**

   As an alternative, add the teacher assignments in the course information. Click **PowerScheduler** and then **Courses**. Select the course, click the **Assignments** tab, and complete the fields.

Automatically Generating Teacher Assignments

To use the **Auto Generate Teacher Assignments** function, first copy a master schedule from last year. Use the **Copy Master Schedule** function to replace the following information in the scheduling area from the selected (i.e., previous) year: years and terms, periods from the school setup, and the entire master schedule. Do not use the **Auto Generate Teacher Assignments** function if you have not copied a master schedule into the scenario because there will be no information for the system to use to generate the assignments.

This function adds the teacher assignments from a previous master schedule to the **Assignments** tab of each Course Information page, but it does not update the **Number of Assignments** field on the **Preferences** tab. After performing the **Auto Generate Teacher Assignments** function, in order to populate the **Number of Teacher Assignments** field, make sure to reset the teacher assignments using the **Reset Teacher Assignments** function.

If you are going to use teaching assignments from a previous year as part of this year's build, perform the Auto Generate function before making any manual changes because the Auto Generate function will overwrite manual changes.

1. On the Start Page, click **PowerScheduler**
2. Below Tools, click **Functions**

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3. Click **Copy Master Schedule**
4. From the **Source year** menu, select the year of the master schedule to copy
5. Leave the check box for **Clear existing scheduling terms in the destination year** empty
6. Select the check box to confirm you want to proceed with copying the master schedule
7. Click **Submit**
8. Return to the **Functions** page
9. Click **Auto Generate Teacher Assignments**
10. Check **Select check box to verify the command**
11. Click **Submit**

    Now, reset the teacher assignments.

12. Click **Functions** > **Reset Teacher Assignments**
13. To verify that the teacher assignments are correct, click **Reports**
14. Then run the **Teacher Assignments by Course** and **Teacher Assignments by Teacher** reports

Summary

You have completed two more steps in the Prepare to Build process. In Steps G and H, you:

- Defined course information manually and using the auto-fill function
- Created course relationships
- Made teacher information available in PowerScheduler
- Defined teacher scheduling preferences manually and with the auto-fill function
- Created teacher assignments manually and with the auto-generate function

While completing the scheduling process, the PowerSchool SIS **Help** menu is another great source of information. On any PowerSchool SIS or PowerScheduler page, click the **Help** icon to search for information about PowerScheduler. Next, finish the Prepare to Build process with Steps I, J, and K.

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PowerScheduler: Prepare to Build – Steps I, J, and K

You are nearly done preparing to build a master schedule for next year. So far, you have created a build scenario and a scheduling course catalog, defined scheduling parameters, entered student, teacher, and course information, and collected student course requests. Now it is time to define build constraints, build the course rank, validate your build, correct validation errors, and prepare to finalize your master schedule.

A. Auto Scheduler Setup
B. Create the Scheduling Course Catalog
C. Define Schedule Parameters
D. Define Rooms
E. Define Student Information
F. Enter Student Course Requests
G. Define Course Information
H. Define Teacher Information
I. Define Constraints
J. Build Course Rank
K. Validate and Prepare to Build

Step I: Defining Build Constraints

Use constraints to tell the system exactly how you want to build your schedule. Constraints limit how courses are built and how schedules are loaded. Build constraints restrict the way the scheduling engine will schedule a course in the master schedule. Load constraints restrict the way the engine schedules students. Use the fewest number of constraints possible to accomplish your scheduling goals; otherwise, you'll end up with too many students who cannot be scheduled fully.

Types of Build Constraints

You can employ multiple types of build constraints:

- **Course Optimize** – This rarely used constraint overrides the default global sampling settings when scheduling a specific course; for example, use this constraint if you have a course that is difficult to schedule such as a singleton section of AP Environmental Science that must be taught in the morning. Apply this constraint so the scheduling engine will consider more scheduling combinations when placing the course in the master schedule.
- **Course Restrict** – Restricts sections to a specific period or day; for example, use this constraint to force several sections of the same course to be scheduled at the same time during the school day instead of spreading the sections out over different periods

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- **Course Room** – Assigns a course to a specific room; for example, use this constraint when a course must be taught in one room, such as a math class that must be scheduled in a classroom with an interactive whiteboard
- **Course Team** – Groups teachers and courses together so that certain courses can only be taught at the same time as other specified courses; for example, you could use this constraint to schedule Jazz Band at the same time as Jazz Choir class
- **Pre-Schedule** – This commonly used constraint schedules sections ahead of time to guarantee an exact day and time in the master schedule; use this constraint when you have already decided when and where the sections must meet in the master schedule, such as an AP Physics course that must meet 1st period on A days
- **Room Free** – Keeps a room from being scheduled during a particular term, day, or period; for example, if two schools share a common gym, this constraint will keep the gym from being double-booked
- **Schedule Break** – This rarely used constraint applies to all teachers and schedules a break between classes; this constraint overrides the maximum consecutive periods preference on individual teachers' settings, since a break is provided in the schedule
- **Teacher Dovetail** – Schedules courses together on alternate days to take up less room in the master schedule; for example, schedule PE and Health classes taught by the same teacher to meet during the same period on alternate days; however, if the teacher is teaching multiple partial-cycle (alternate day) courses, blocking the opposite days is the best relationship choice
- **Teacher Free** – Keeps a teacher from being scheduled for a specific period(s); use this constraint to pre-determine a planning period for a teacher, such as department heads, teachers from other departments, or coaches
- **Teacher Part-Time** – Defines available periods for part-time teachers; use this constraint to limit the periods that a part-time teacher is available to be scheduled
- **Teacher Team** – Permits teachers to teach sections outside their team; for example, use this constraint when a teacher who teaches Science to Orange team students should also teach elective classes on the Red team; mostly used at the middle school level

Creating a Build Constraint

The more constraints you define, the less flexibility you have to build your schedule and the less optimal the resulting schedule will be. Use the fewest number of constraints to accomplish your scheduling goals.

1. On the Start Page, click **PowerScheduler**
2. Below Scheduling Setup, click **Constraints**
3. Click the build constraint you want to define, such as **Pre-Schedule**
4. Click **New**
5. To select a course for the constraint, click **Associate** and select the course, such as **Band**
6. From the **Schedule** menu, select a term
7. Then select the periods and days that the course must be scheduled into

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8. If needed, enter the optional information for the remaining fields
9. Click **Submit**
10. View the number and type of build constraints that you have created by clicking **Build Constraints**

    Load constraints are listed below the build constraints. However, these load constraints apply to the load process, and you should not define them until after you build your master schedule. If you created any block relationships that created section links, those section links will be listed automatically with the load constraints.

Step J: Building Course Rank

The course rank defines the order in which the system schedules courses into the master schedule. The rank is a value that the system assigns to a course according to how difficult it is to schedule. As the system fills the master schedule with courses during the build, it becomes more difficult to schedule each successive course. Therefore, the order in which the system schedules courses is important and is based on these factors:

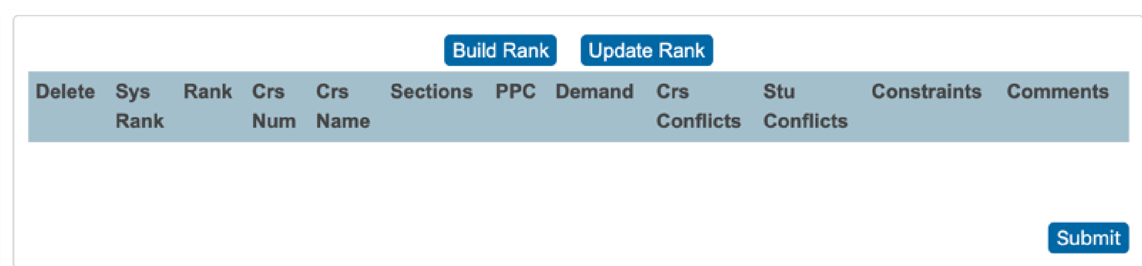
- Number of sections per term of the course
- Demand for the course based on student requests
- Constraints created in Step I

First, the system builds the course rank based on course definitions and constraints. The system assigns each course a sequential number in increments of ten (such as 10, 20, 30). Then, you can change the rank of some courses manually, based on your experience or on special circumstances not otherwise reflected in course definitions or constraints.

Building the Initial Course Rank

When you build the initial course rank, courses appear in the order that they will be scheduled. This order is set by the scheduling engine and is based on the course definitions, student requests, and constraints. Student requests must be submitted before this function will work.

1. On the Start Page, click **PowerScheduler**
2. Below Processing, click **Course Rank**



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PowerScheduler: Prepare to Build – Steps I, J, and K

3. Click **Build Rank**

   Even though no current course rank appears on the page, the confirmation message will appear when you click Build Rank.

   Confirm Build Course Rank

   Please confirm you want to delete the current course rank and build a new course rank by pressing the submit button. The operation will take several minutes to complete.

   Submit

4. Click **Submit**

Changing the Course Rank

After the system builds the course rank, you can make manual adjustments to the order that courses will be scheduled. Manual adjustments should be rare since the course rank numbers are based on course settings and course requests and changing the rank of one course affects all subsequent courses. Keep in mind that you cannot change the rank of a course to be higher than a prescheduled course (set up as a constraint in Step I). The system schedules the prescheduled courses first.

1. Below Processing, click **Course Rank**

   The following image is a portion of the Course Rank page.

Build Rank Update Rank

Delete	Sys Rank	Rank	Crs Num	Crs Name	Sections	PPC	Demand	Crs Conflicts	Stu Conflicts	Constraints	Comments
☐	10	10	18001	Band	1	0	0	0	0	Yes	
☐	20	20	SCI3000	Anatomy/Physiology	1	0	1	14	13		
☐	30	30	MUS2100	Pop Choir	1	0	2	22	25		
☐	40	40	ELE2345	Living Life	1	0	2	17	21		
☐	50	50	ENG3000	AP American Lit and Comp	1	0	1	11	10		
☐	60	60	MUS1000	Concert Choir	1	0	0	0	0		
☐	70	70	CS3000	Computer OS	2	0	3	27	35		
☐	80	80	ART2200	Painting	2	0	3	24	32		

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PowerScheduler: Prepare to Build – Steps I, J, and K

2. Locate the course for which you want to change the system-assigned rank and change the value in the **Rank** column

   If Advanced Sculpting II needs to be ranked above Art II, then change the ranking for the two courses by entering new numbers, usually in multiples of 10, in the Rank fields. The Sys Rank column continues to display the rank value the system assigned originally to the course for your reference.

   The Demand column displays how many student requests there are for the course.

   When you look at the Course Conflicts and Student Conflicts columns, keep in mind the number in the Demand column. Course Conflicts displays the number of other courses requested by the students who signed up for a particular course. The scheduling engine uses the Course Conflicts and Student Conflicts values in calculating Course Rank.

   If you want to manually adjust Course Rank for a pair of courses for which there is equal demand, you might consider the value in the Course Conflicts column and give a higher rank to the course with more potential conflicts.

Build Rank Update Rank

Delete	Sys Rank	Rank	Crs Num	Crs Name	Sections	PPC	Demand	Crs Conflicts	Stu Conflicts	Constraints	Comments
☐	10	10	18001	Band	1	0	0	0	0	Yes	
☐	20	20	SCI3000	Anatomy/Physiology	1	0	1	14	13		
☐	30	50	MUS2100	Pop Choir	1	0	2	22	25		
☐	40	40	ELE2345	Living Life	1	0	2	17	21		
☐	50	30	ENG3000	AP American Lit and Comp	1	0	1	11	10		
☐	60	60	MUS1000	Concert Choir	1	0	0	0	0		
☐	70	70	CS3000	Computer OS	2	0	3	27	35		
☐	80	80	ART2200	Painting	2	0	3	24	32		

3. Use the **Comments** column to record why you are making changes to a course's rank
4. Click **Submit**

Updating the Course Rank

If you edit the number of course sections, change the number of student course requests significantly, or add or delete constraints, you must update the course rank. The system saves any manual changes you made to course rank values, and updates those you have not changed.

1. Below Processing, click **Course Rank** > **Update Rank**
2. Click **Submit**

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PowerScheduler: Prepare to Build – Steps I, J, and K

Rebuilding the Course Rank

If you make several major changes, including adding or deleting a course, you must rebuild the course rank from scratch. Rebuilding the course rank will cause the system to overwrite all manual changes you made previously to the course rank.

1. Below Processing, click **Course Rank** > **Build Rank**
2. Click **Submit**

Step K: Validating and Preparing to Build

After you complete the Prepare to Build Steps A-J, download the scheduling engine and use it to validate the data you entered during these steps. The scheduling engine checks all of the following information during a validation:

- All courses selected as scheduled must be in the course rank
- All courses assigned to teachers must be in the course rank
- Each course has a room that will handle its capacity
- Student course requests have been dropped if a course is not scheduled

When you validate the build data, PowerScheduler also lists any problems with the data you entered during the preparation process. For example, the system alerts you if you assigned too many course sections to a teacher, or if a student who is to be scheduled does not have any course requests. If errors appear on the validation report, run the Course List, Rooms List, and Teacher Assignments reports to verify the data you entered. Many errors reported in validation can be caught and fixed by running these reports and analyzing the results.

Download the Engine and Validate Your Build

In order to validate your build, download and install the PowerScheduler engine on the local machine you will use to create the schedule. Now validate your build to check for errors.

Downloading the Engine

If you don't use the Enable Server-Side Engine Loader option, you need to download the PowerScheduler engine before you can validate your build and finalize your master schedule.

From the PowerScheduler menu, below Tools, click Engine Download

Click the link to download and install the engine to your computer

Validating Your Build

Once the engine is downloaded, you are ready to validate your build and check for errors.

1. On the Start Page, click **PowerScheduler**
2. From the PowerScheduler menu, below Processing, click **Build**
3. Check **Validate only**

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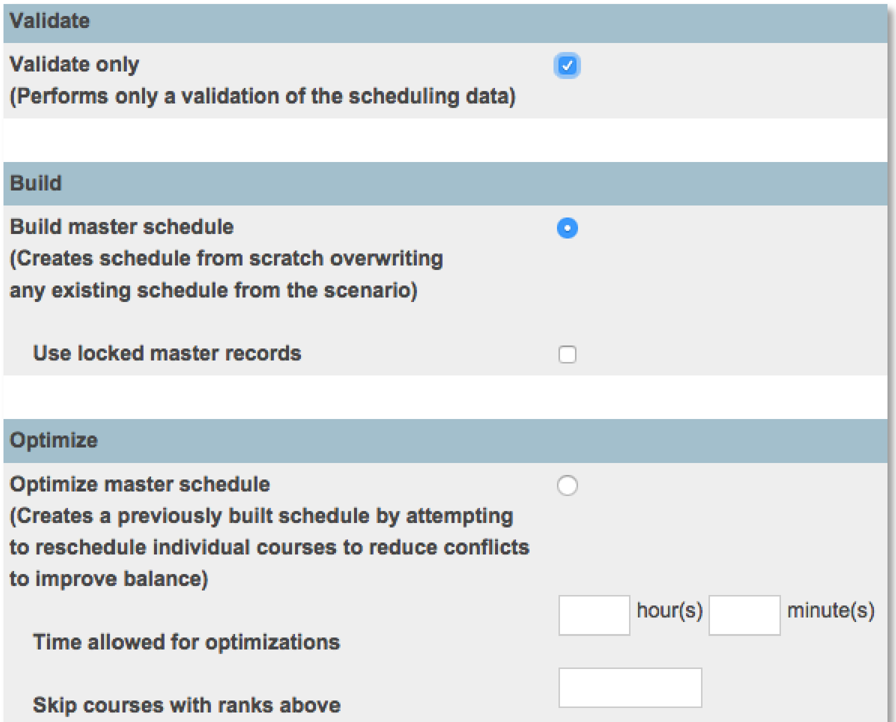
4. Confirm that **Build master schedule** is selected



5. Click **Execute**

   The PowerSchool SIS Scheduling Engine window opens for a few seconds before closing again. When the scheduling engine validates your build, it generates a results log.

6. On the PowerScheduler menu, below Processing, click **(Q)** next to Build
7. Under Results Log, click **View**

The Results

The Build Results Log contains messages, warnings, and errors concerning the build, as well as basic scheduling engine information. The scheduling engine information is always listed first.

Correcting the Errors

Errors represent conflicts, missing data, or wrong information that you must correct before you can finalize the schedule.

There are three types of messages:

- Info – These informal messages provide information about what version of the engine and platform you are operating when you run the validation. For example, the message may say how many errors were noted and how long it took to run the validation.

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- Warning – The “red flag” messages from the engine display a list of items that are problematic. However, these warnings do not prevent the build from continuing. The warnings are important because they are issues that you should fix before finalizing your master schedule and loading students into it.
- Error – These messages are validation errors that you must correct in order for the engine to run the build. Many errors are related to one another, and if you correct one error or make the erroneous value valid, you will have corrected other errors as well. Run the validation often while fixing errors. Validation will remove the error messages for the errors you corrected and present a current list of errors. Continue to run the validation until the results are error-free.

For more information on validating data and common errors, see the knowledgebase articles available on PowerSchool Community, such as PowerScheduler: Build (Q) Results Log: Errors and Definitions.

Common Errors

Although you may see many different validation errors, the following errors are very common.

Error: The teacher Assignment file contains an invalid teacher for Course 13003A.

Error: Invalid Department Code Found in the Teacher file. The teacher name is Fielding, Margaret B, the invalid code is Social Studies.

- Some errors are related to one another. Therefore, if you correct one error or make a value valid, the other errors are removed. For example, there are two errors listed above, but focus on the teacher file error. Social Studies is an invalid code because department codes have a maximum of ten characters. Change the Social Studies code to SOC, then change the department code associated with the teacher and the course. Once the department codes are valid, so are the assignments associated with the teacher.

Error: The teacher is oversubscribed: The teacher has been assigned too many courses/sections. The teacher's name is Martin, Gabriel U.

- A teacher with more assignments than periods in the day is oversubscribed. Verify which assignments you gave the teacher. Sometimes during a build, assignments are switched, but not everything is deleted.
- If the assignments look accurate, then most likely the teacher is teaching courses that are related. Verify that the courses and their relationships are set up correctly with the accurate relationship type and code.
- Finally, make sure the course is defined correctly in the Course Preferences.

Error: The previous error message, 90, has occurred 25 times. This error message will not be printed again.

- When you look at the validation error results and see that the same type of error is listed 25 times, check all the courses for the same potential error. If you fix only the 25 errors listed, the next time you run the validation report, the next 25 will appear. So, if you see this error on the first validation report, be aware that there could be more than the 25 listed.

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Error: There's no room to host the course due to the course max, facilities, or department. The course is 15005 [French I].

- This is a specific error, but it is often the most difficult to fix. The error actually tells you which three fields of information to check. "Max" is the maximum enrollment of the course. "Facilities" are the facilities associated with the course. Verify that you have associated the correct department code with the course. If all three fields are correct, there is only one other place to look for the error: the room. You scheduled sections of French I into rooms and used departments and facilities to filter the sections into specific rooms. Compare the course information to the room information.

Error: The Student requests multiple times of the same course, but the course does not allow repeating requests. The student name is Danger, Rudy, and the course is 14009.

- You can remove this error three ways. First, if the student is to have only one request for that course number, navigate to PowerScheduler and click **Courses**. Click the course name, and then click **Requests**. All the students who have requested the course are listed. For any student listed twice, check **Delete** for one of the requests. Finally, click **Drop Requests**.
- If the students are allowed to have only one request, run the Course Request Tally report. Click the total number of requests, and use the Mass Delete Requests function to delete the first occurrence of the requests.
- If the students are allowed to request the course more than once, then navigate to the Course Preferences page. Check **Allow Student Repeats in the Same Term**, or check **Allow Student Repeats in Different Terms**.

Error: The Teacher Assignment file contains a term that is not possible for this course. The teacher is New PE, First Aid, the course is 16002, and the invalid term is S2.

- The teacher assignment is not valid according to the Course Preferences page. During a build, you may have decided to schedule a new (yet to be hired) teacher in place of a previous teacher. Although you changed the teacher assignments, you still need to change the course assignments.

Warning: The teacher's preferred room is not suitable for the course the teacher is teaching. The teacher name is Norberg, Shel K, the preferred room is 502, and the course is 15005.

- Often, a teacher instructs multiple subjects. However, you associated a specific department code with this teacher, and this teacher is teaching course(s) that are not associated with that department. You could also have a problem with the course maximum versus the room maximum. This warning does not mean the courses won't get scheduled.

Warning: Student has too many requests. The student is Ackerman, Bob. Out of 80 time slots available to schedule, requests fill 84.

- Students can be associated with as many or as few requests as a school allows. In this case, if a majority of the students have this warning, then the load percent will be very low. However, the percent is false because the majority of the students will be fully scheduled. The slots are terms, times days, times periods. So if you have a master schedule with semesters (2 terms), 1 day, and 8 periods, the result is 16 time slots.

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What Comes Next?

After you fix the errors from the validation, you are ready for the next step. It's important to sign up for and attend a PowerSchool SIS PowerScheduler: Build Workshop. Give yourself enough time between the Prepare to Build course and the Build Workshop course to complete all the steps up to the validation. Running a validation and looking at the validation errors before the workshop will help you successfully complete a master schedule by the end of the Build Workshop.

Summary

You have completed the final steps in the Prepare to Build process. In Steps I, J, and K, you:

- Defined build constraints
- Learned how to build, change, update, and rebuild the course rank
- Downloaded the PowerScheduler engine
- Validated your build
- Located and interpreted the results of your validation
- Determined the next steps for building your master schedule

While completing the scheduling process, the PowerSchool SIS **Help** menu is another great source of information. On any PowerSchool SIS or PowerScheduler page, click the **Help** icon to search for information about PowerScheduler. Next, attend a Build Workshop to finalize your master schedule, then learn how to load your students into the master schedule in the Load Process course.

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