Gallup-McKinley County Schools



POWERSCHEDULER PROCEDURES MANUAL



2016-2017

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Complete Master Schedules are DUE on June 15, 2016

Introduction

The information contained in this handbook is to assist anyone who is working with or creating the Master Schedule at your school.

The Master Scheduler (designated by the school principal) will be responsible for building the master schedule for the 2016-2017 school year and loading students into this new master schedule. The school administrator must approve the schedule and submit request to Lori Clark to have the schedule committed.

Schools may have a scheduling committee, but only **one** person per school will have Power Scheduler rights. This person is designated by the school administrator. This designee will be responsible for attending scheduling trainings and bringing training materials back to their school site.

This handbook contains screen shots that will give the scheduler a visual of each screen used to build and load the new schedule. Please remember that you can call us anytime for assistance:

Lori Clark – ext. 12202 Kim Butkovich – ext. 12220



<u>CREATING NEW MASTER SCHEDULE – CHECK LIST</u>

	Decide what courses you are going to offer for the 2016-2017 school year.
	 Check course catalogs/STARS manual
	 Make sure you have an appropriately licensed teacher for each course
	 Request new course numbers from Lori Clark
	o Computer Based (including Credit Recovery) courses should have a licensed teacher
	 endorsements recommended
	Update/Create on-line registration pages
	Student registration
	Review Course Tally Report
	 Identify number of sections needed per course to meet students' needs
	 Cross reference with number of teachers available
	Set up course
	 Define all required information for each course
	 Include any specific constraints that must be considered prior to building
	the master schedule
_	o DO NOT CHANGE CREDITS, CREDIT TYPES, DEPARTMENTS OR NAMES!
Ш	Set up teachers
	 Update the Schedule This Teacher field for all staff
	 Enter values in the required fields on the Staff Scheduling Preferences
	page
_	Define all teacher assignments (either in Teachers or in Courses) Outlined Assignment transport to the second secon
	Optional: Assign section types or teams
	Download Schedule Engine to your computer
Ш	Define Build Constraints
	 Add to Course, Teacher or Student Build Course Rank
ш	
	 Must be done every time course information is updated Can be adjusted
П	Validate Schedule
ш	Check for errors
	Fix errors
П	Build Schedule
_	Review
	 Adjust – if making adjustments, then start over at Step 9.
	Define Load Constraints
	Validate Load
	Check for errors
	o Fix errors
	Load Students
	Import
	Review student schedules
	 Reload students
	 Manually adjust individual schedules
	Contact Lori Clark to Commit Master Schedule/Student Schedules
	o Date due: 6/17/2015
	Audit student schedules!

Recommended Time Line:

(This is not written in stone, but may help you organize your time to ensure you meet the June 15th deadline to complete your schedule. The deadline given, must be adhered to, as we still have to perform the EOY process to close down PowerSchool and set up the new school year before 7/1/2016)

2/22/2016 – Master Schedule training for high schools [9AM – 12NOON]

2/23/2016 – Master Schedule training for middle schools [9AM – 12NOON]

2/24/2016 - Review course catalog

2/29/2016 – Meet/discuss with school staff course recommendations for the 2016-2017 school year.

Email Lori Clark to add courses to catalog.

3/11/2016 – Registration pages created and ready for student registration

3/28/2016 – Start online registration

4/11/2016 – Master Schedule training for high schools [9AM – 12NOON]

4/12/2016 – Master Schedule training for middle schools [9AM – 12NOON]

4/15/2016 – Online registration complete

Review reports; ensure all students have requests

Review course requests; ensure all students have the correct requests

Update course requests as necessary Run Course Request Tally report

Determine # of sections needed, by the number of requests per course Compare # of sections needed with the number of available teachers

5/9/2016 - Master Schedule training for high schools [9AM - 12NOON]

5/16/2016 – Master Schedule training for middle schools [9AM – 12NOON]

5/13/2016 - Start Building

Ensure ALL set up is complete

Assigned teachers are licensed and endorsed correctly

Review, rebuild and review

5/20/2016 – Done building schedule

Manual tweeking – creating, moving sections (with caution)

Review percentages scheduled

Run reports

6/1/2016 – Review, edit and run the Load Process

Look at individual student schedules

Check rosters; Master Schedule

6/15/2016 – Schedule complete, SIS has committed it

7/2/2016 – Review master schedule

Update individual schedules as necessary

Audit graduation requirements

AUDITTING – items to use to ensure students have selected the correct courses to complete or stay on track for the state requirements for graduation.

Graduation Plan Progress page:

- Historical grades must have the correct credit type assigned for the credit to register on this page
- Sorts Alphabetically by course name
- Shows individual credits, in lieu of total per course
- Shows items needed for Graduation:
 - o Distance Learning
 - o Dual Credit
 - o Advanced Placement
 - o Honors
 - o If student has passed the Graduation Assessment
 - o Algebra II Waiver

Transcript report:

- Will not print courses with blank grades
- Will only print courses where grades have a credit type attached in historical grades
- Calculates GPA based on credits
- Sorts by Term and School Name
- Shows test scores for:
 - o PARCC the best scores only
 - o NMSBA the last scores only
 - o HSGA whether or not he student has passed the Graduation Assessment
 - PSAT the best scores only
 - o NM Alternate Assessment for students receiving special education services
 - SAT the best scores only
 - ACT the best scores only
- Transcript report will not pull empty grades, but the attempted (Potential) and earned credits in historical grades will add to total credits for both on this report.
- I (Incompletes) letter grades will be changed to F in June. These grades will count in the GPA. Make sure the grade is updated appropriately. If the student completed the course, then change the "I" to the passing grade. DO NOT add a new line to historical grades for a course with an "I". IF you need assistance with this call the STARS team before proceeding.

Before you offer courses make sure the following is addressed:

Computer Based Courses:

Computer based courses can either be PLATO, E2020, or any other program that is approved by Learning Services, where the student works at their own pace on assignments on a computer.

A room supervisor must be present, this supervisor must:

- Be a licensed teacher no assistants
- Can be a substitute teacher, if the position is being advertised for
- Must be endorsed in the content area for that computer based course

Core classes (i.e. English I, Algebra I, World History, etc.) can only be taken as a computer based class if the student has failed their first attempt in this subject in a regular classroom setting. Electives do not follow this criterion.

Students should not be scheduled in a computer based "core" class for their first attempt!

Distance Learning Courses:

"Refers to the technology and educational process used to provide credit, or grade bearing courses, when the course provider and the distance-learning student are not necessarily physically present at the same time or place."

Distance learning does not include educational software that utilizes only on-site teaching.

A distance learning course is one where the student and primary instructor are separated by time or space and linked by technology.

We need to be notified of any courses that meet this criterion.

Dual Credit Courses:

Dual credit courses must be listed on the Dual Credit agreement. This agreement will be updated twice a year, in June for the Fall and in December for the Spring.

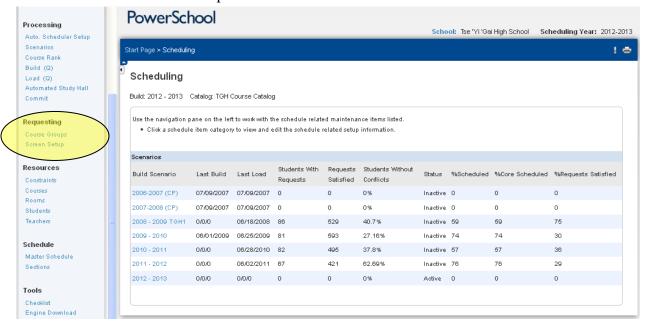
<u>Course numbers are specific</u>, and must be used correctly for the student to be reported correctly. Teachers must be endorsed in the content area for that course and approved by the College/University for the student to receive credit.

Contact us for assistance with course numbers.

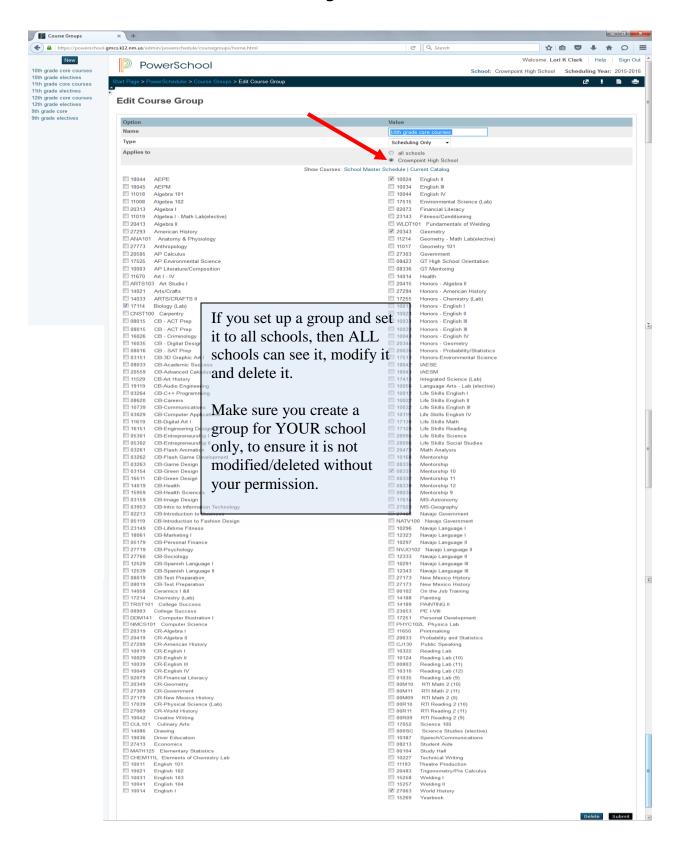
Please remember for scheduling purposes, you want to make the registration process simple and easy for students.

To update your course groups for scheduling:

- 1. Go to PowerScheduler
- 2. Click on Course Groups



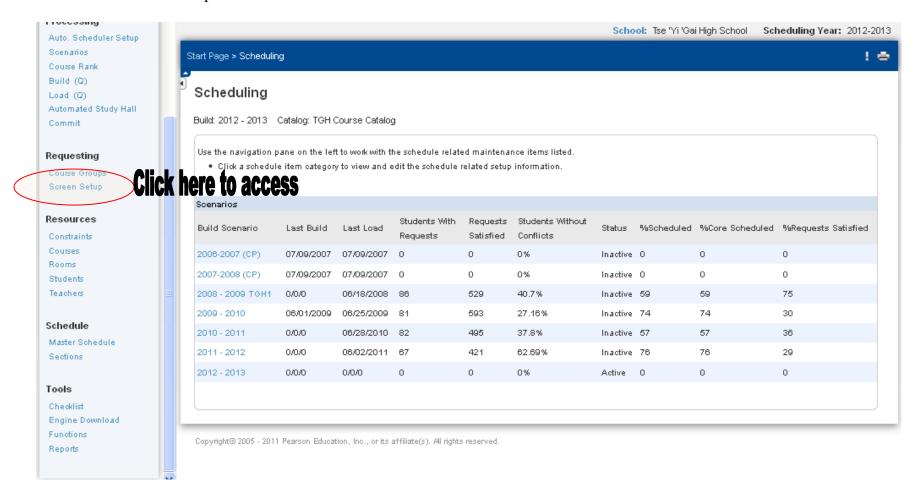
- 3. Click on the Group you want to update
 - a. Make sure it is specific to your school
 - b. Remember these are preset groups and assigned to all schools, so if you remove a course that all schools use, then you remove it for all schools.
 - i. You can create a new group that is specific to your school
 - ii. Make sure it is set for Scheduling Only
 - iii. Make sure your school is checked, **NOT ALL SCHOOLS**
- 4. Check or uncheck the courses you want to add or remove from this group
 - a. Click each course you want to add, if a course is not listed, then click on Current Catalog to add the missing course.
 - b. Click Submit



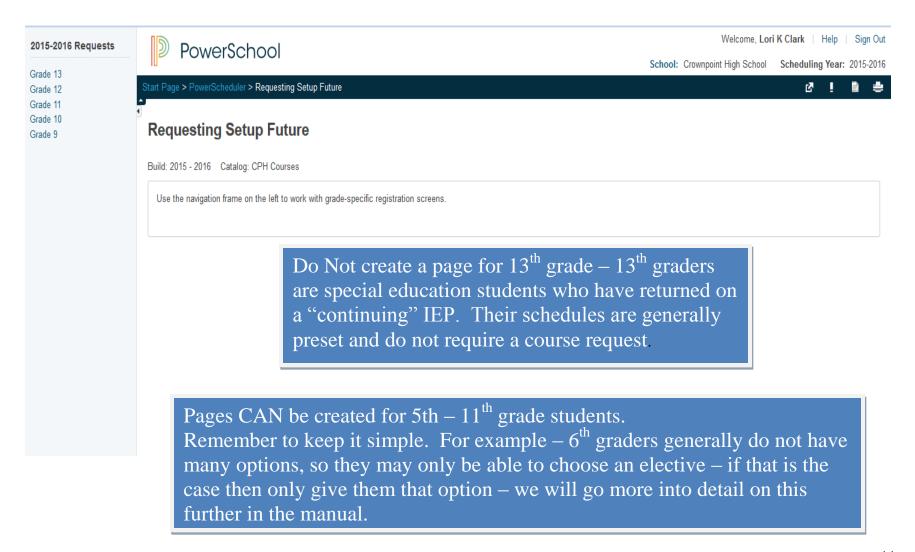
CREATING & UPDATING REGISTRATION PAGES:

*Last year's pages can be rolled over – contact Lori Clark to have them rolled over to the 2015-2016 scheduling bubble.

- 1. Click on PowerScheduler
- 2. Click on Screen Setup

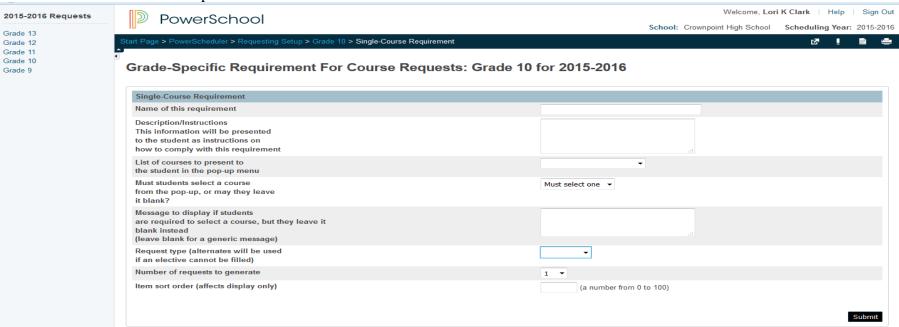


- 3. Click on Grade level you are creating screens for.
- 4. 3 Different options are available:
 - a. New Single Course Requirement
 - b. New Multi-Course Requirement
 - c. New Core Requirement



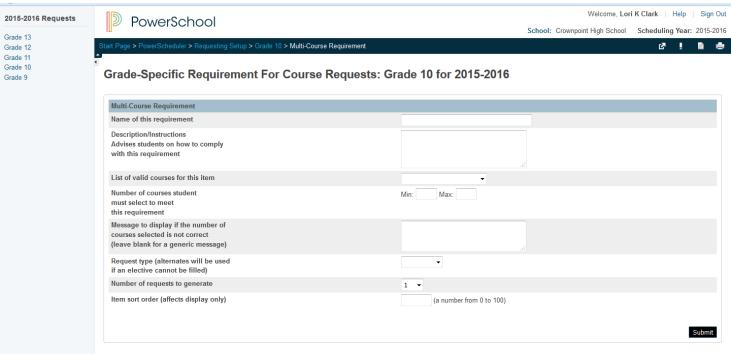
New Single Course Requirement

- 1. Create a grade level specific option that is required for all students
 - a. Ex. English I is required, but students can take either English I or Honors English I.
- 2. Enter the Single Course Requirement. Ex. English IV
- 3. Add instructions. Ex. "You must choose one course to complete your registration for the English requirement."
- 4. Select a course group. These should have already been created. Please call if you find that not all courses are listing correctly.
- 5. If it is a core class, then students "Must Select One". You do have the option of making the requirement optional, if the student does not need it. For example, if you create a credit recovery requirement then not every student would be required to select a course.
- 6. You should add a message to display if this requirement is mandatory. This message will pop up if the student does not make a selection.
- 7. The Request type should reflect the type of course. Required or Elective should be used. Alternative should only be used for Alternative selections, other than the first selected courses.
- 8. Number of requests will ALWAYS be 1.
- 9. Sort order will determine where this requirement appears on the list for the student screen.
- 10. Click Submit when completed.



New Multi-Course Requirement

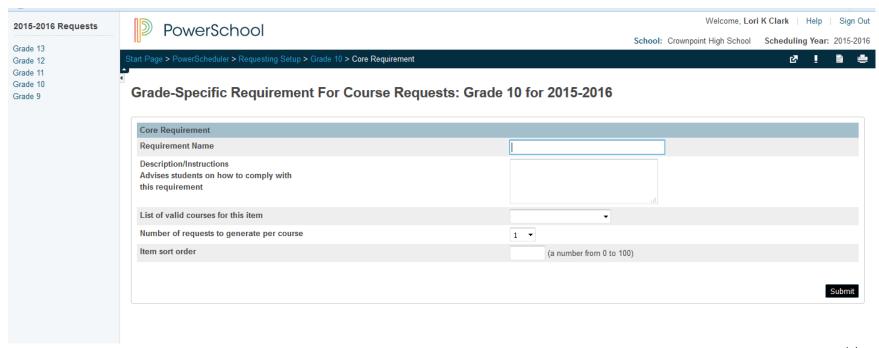
- 1. Creates a grade level specific option where students can choose more than one course for the one requirement.
- 2. Enter the Multi-Course Requirement name. Ex. Electives
- 3. Enter Description/Instructions
 - a. Should provide student with instructions on how many courses they need to choose to complete the registration
- 4. List of valid courses for this item
 - a. Choose course group that corresponds with your Requirement name
- 5. Number of courses student must select to meet this requirement.
 - a. Ex: min: 2 max: 4
- 6. Message to display if the number of courses selected is not correct. This message will pop up if the student does not make the correct number of selections.
- 7. Number of requests will ALWAYS be 1.
- 8. Sort order will determine where this requirement appears on the list for the student screen.
- 9. Click Submit when completed.



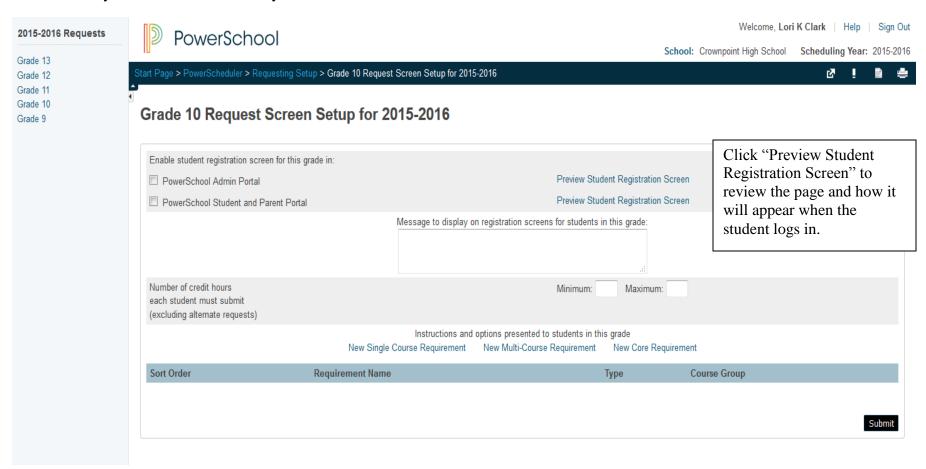
New Core Requirement

- 1. Creates a grade level specific option where the course is automatically assigned. Students cannot change the assignment.
- 2. Enter the New Core Requirement name. Ex. English IV
- 3. Enter Description/Instructions
 - a. Informs student that this is core course and is automatically assigned
- 4. List of valid courses for this item
- 5. Choose course group that corresponds with your Requirement name
- 6. Number of requests will ALWAYS be 1.
- 7. Sort order will determine where this requirement appears on the list for the student screen.
- 8. Click Submit when completed.

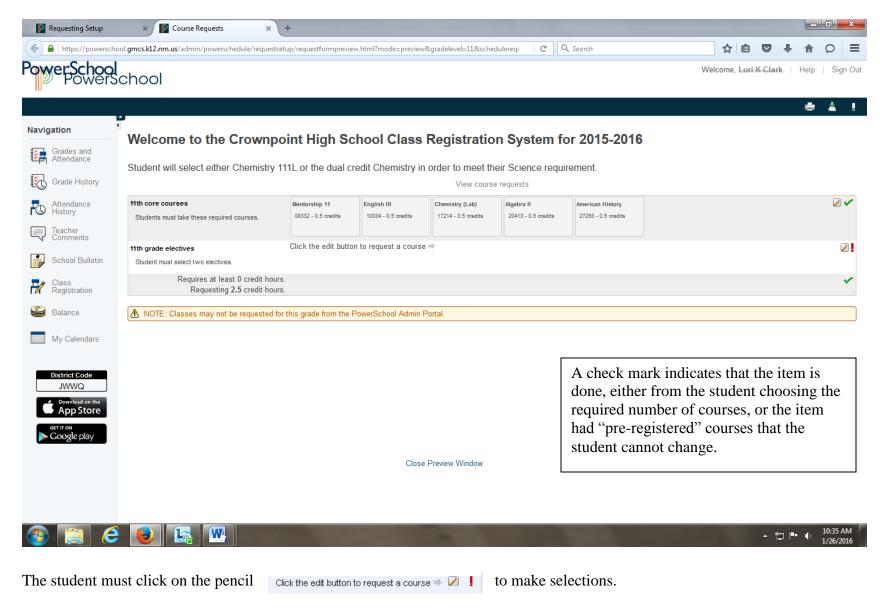
*Note: This option works perfectly for items where students have no choice. For example, you may want to assign ALL 9th graders to PE or Health. With this option, once they click submit, a request is generated for this course, that the student cannot remove.



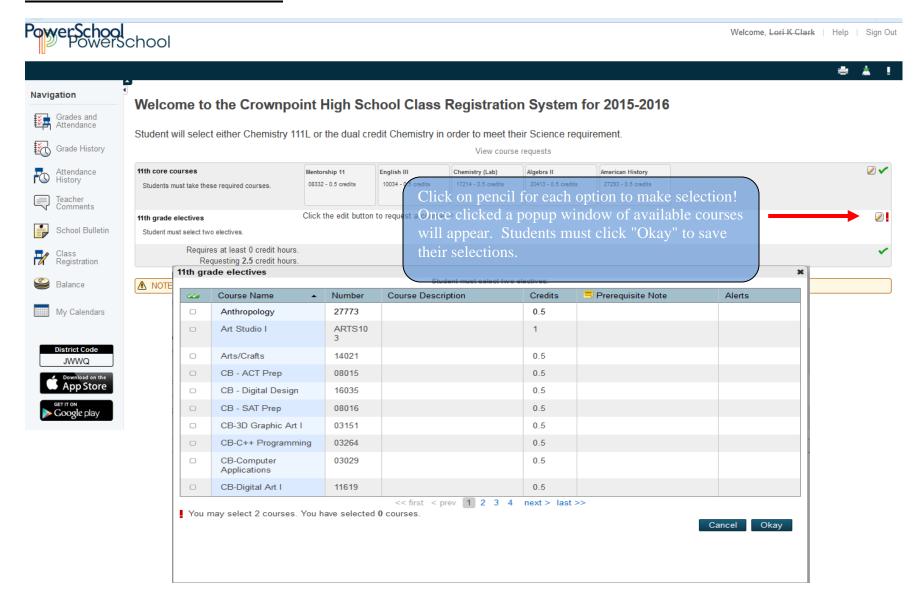
- Once you have completed the screen set up then you will need to turn on the page
 - o PowerSchool Admin Portal those with Admin rights can access the screen and make adjustments
 - o PowerSchool Student and Parent Portal students will be able to see the registration screen upon sign in to PowerSchool on the Student/Parent Portal
- You can add a message to display on the registration page. Remember that both parents and students will see this!
- The number of credit hours will create a message if the student does not sign up for enough classes to fill their schedule. If you use this option, please remember that most High School classes are only worth .5 credits. Even though core courses get a full credit at the end of the year, the system will only calculate the number of credits assigned to the course. Middle School only courses are not worth any credit.



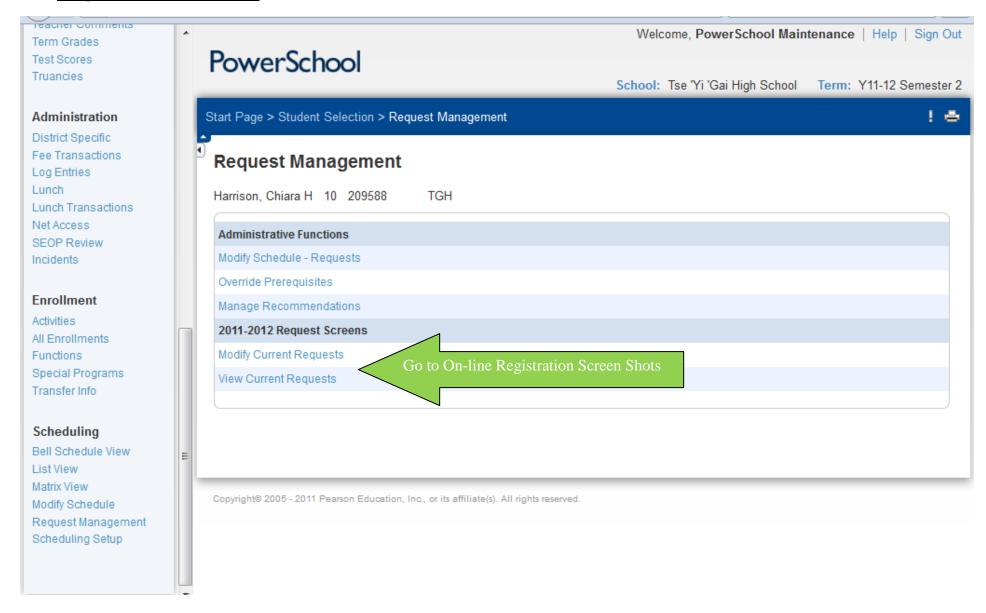
This screen shows you what the student sees when they login to PowerSchool and click on Class Registration:

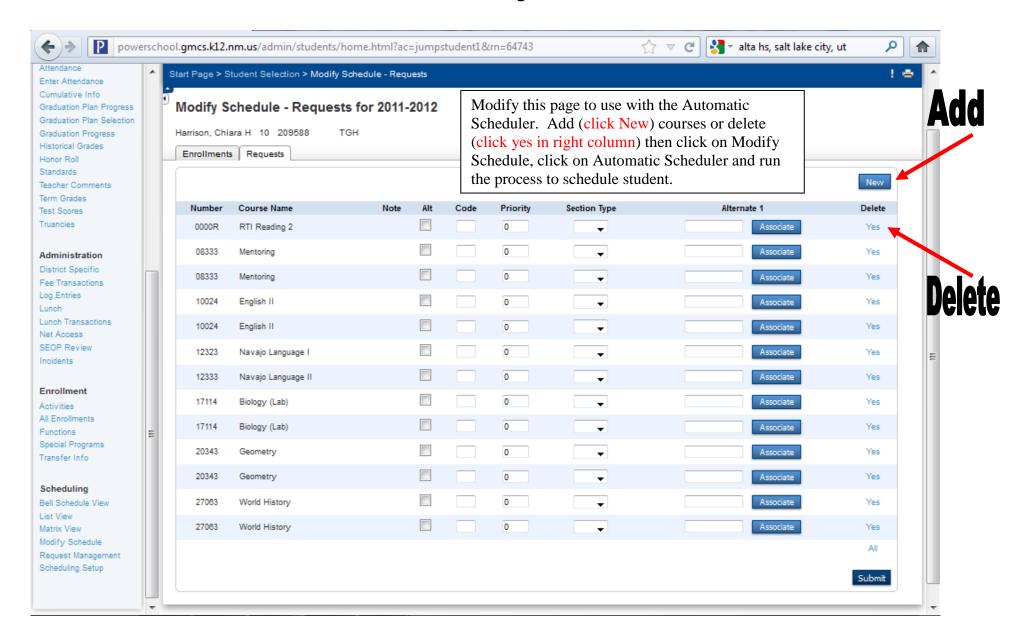


STUDENT REGISTRATION PAGE:



REQUEST MANAGEMENT:





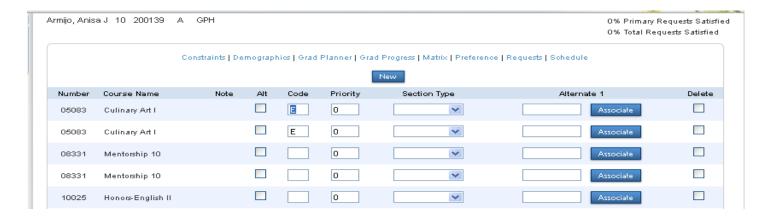
EDITING COURSE REQUESTS:

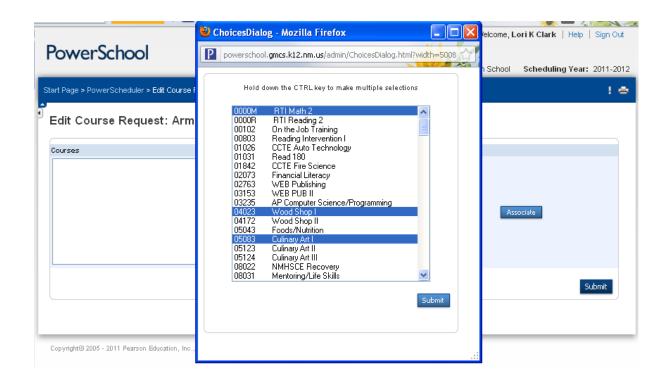
- 2. On the Start Page, select PowerScheduler from the main menu.
- 3. Under Resources, select Students from the PowerScheduler menu. The Scheduling page appears.
- 4. Select the students you want to work with. Only those students whose schedule preferences have been entered will be available for scheduling in PowerScheduler.

Some Selection examples are:

- o Click a number to select all students in a particular grade level.
- o Click M or F to select all Male or all Female students.
- o Click All or the magnifying glass to select all students currently marked to be scheduled.
- o Enter a search string in the field provided to select students by another identifying record entry.
- 5. Click "Select these students" so that the names appear in the Students menu.
- 6. Select Requests from the pull-down menu.
- 7. Click a student's name to view his or her Requests page.
- 8. Click New. The Edit Course Request [student name] page appears.
- 9. Click Associate and select the name of the course(s) from the displayed list. Press and hold Command (Mac) or Control (Windows) to make multiple selections.
- 10. Click Submit. The Requests page will appear.
- 11. Use the following table to enter information in the fields:

Field	Description	
Number	The number of the requested course appears.	
Course Name	The name of the requested course appears.	
Alt	Select this checkbox to indicate whether this is an alternate course request.	
Priority	If you selected the Alternate checkbox, enter a priority number so the system will know which alternate to load first when a student does not receive the elective that he or she wants.	
	Select the course section type, if applicable, from the pull-down menu. For example, a student may request a bilingual section of a course.	
Alternate 1	Click Associate to select the name of the first alternate for this course.	
Delete	Select this checkbox to remove the course request.	

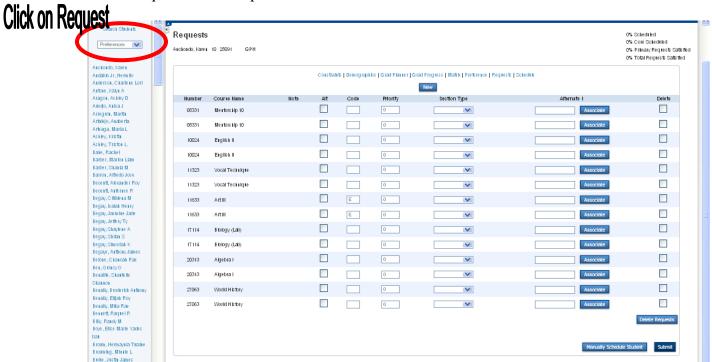




12. Click Submit. The Requests page appears.

DELETE INDIVIDUAL STUDENT COURSE REQUESTS:

- 1. On the start page, select PowerScheduler from the main menu.
- 2. Under Resources, select Students from the PowerScheduler menu. The Scheduling page will appear.
- 3. Select the students you want to work with.
- 4. Click "Select these students" so that their names appear in the students menu.
- 5. Select Requests from the pull-down menu.

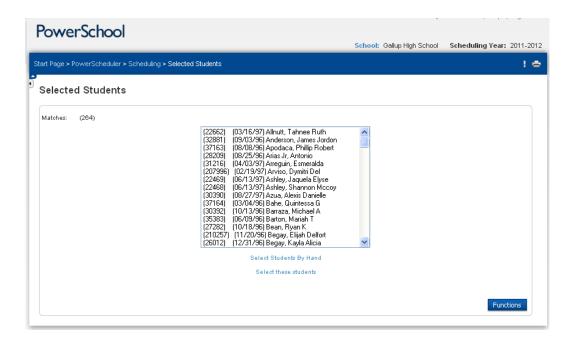


- 6. Click a student's name to view his or her Requests page.
- 7. Select the Delete checkbox in the row of each course request you want to delete.
- 8. Click Delete Requests. The Requests page will appear.

MASS ASSIGN STUDENT COURSE REQUESTS:

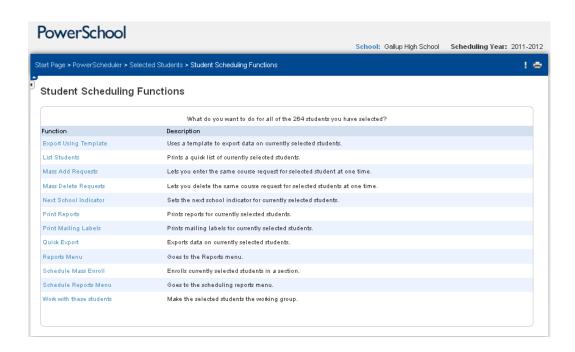
It is possible that an entire grade level or group of students will need to request the same course or courses. If this is the case, you have the option of mass assigning course requests to these students.

- 1. On the start page, select PowerScheduler from the main menu.
- 2. Under Resources, select Students from the PowerScheduler menu. The Scheduling page appears.
- 3. Select the students you want to work with.



4. On the Selected Students page, click Functions. The Scheduling Functions page will appear.

5. Click Mass Add Requests. The Mass Add Requests page will appear:



6. Use the following table to enter information in the fields:

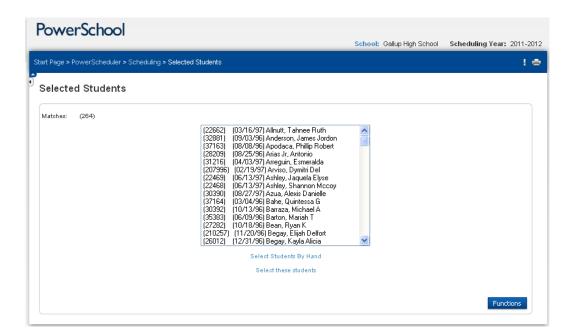
Field	Description		
Course Number	Click Associate to select the number of the course you want to assign to the group of students you selected.		
Section Type	Select the course section type, if applicable, from the pull-down menu. For example, these students may request a bilingual section of a course.		
Request Type	Select the type of request from the pull-down menu: o Required o Elective o Alternate		
Priority	If you selected Alternate in the Request Type field, enter a priority for the request. The lower the number, the higher the priority and the more likely these students will be scheduled into this alternate class.		

7. Click Submit. The Changes Recorded page appears.

MASS DELETE STUDENT COURSE REQUESTS:

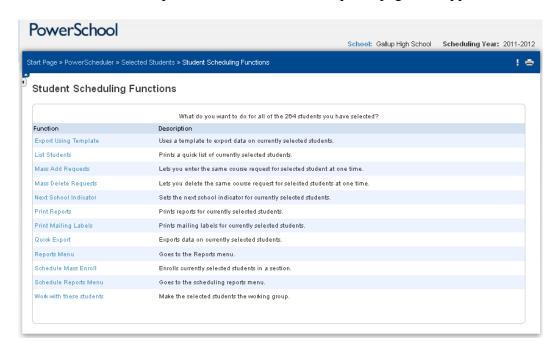
After student course requests have been entered, you may find that due to a data entry error, an entire group of students was assigned to the wrong course. Alternatively, perhaps there is not enough money in the budget to hold a particular course next year. In these and other similar situations, you have the option of mass deleting student course requests.

- 1. On the start page, select PowerScheduler from the main menu.
- 2. Under Resources, select Students from the PowerScheduler menu. The Scheduling page will appear.
- 3. Select the students you want to work with.



4. On the Selected Students page, click Functions. The Scheduling Functions page will appear:

5. Click Mass Delete Requests. The Mass Delete Requests page will appear.



6. Use the following table to enter information in the fields:

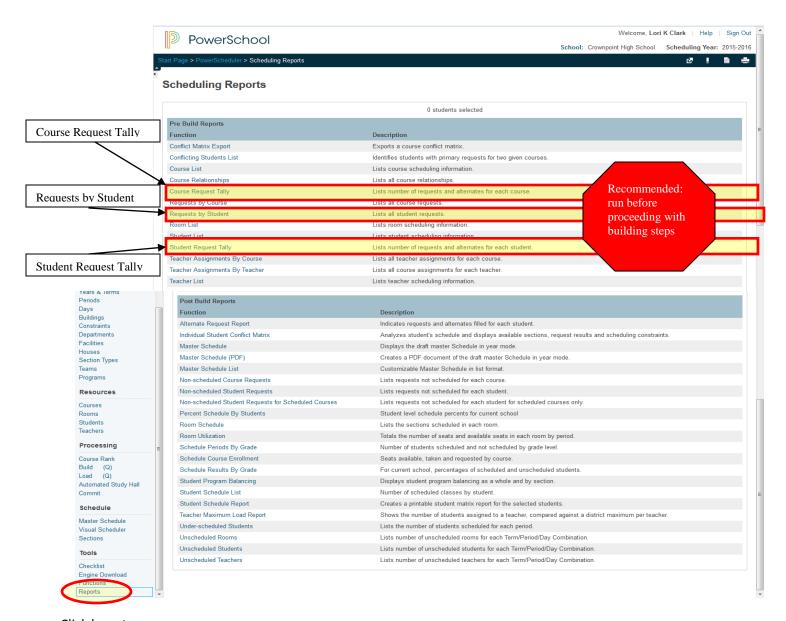
Field	Description	
Section Type Click Associate to select the section type, if appropriate. This ensures that only requests of the selected course that have this section type will be deleted.		
I A Iternate	Select this checkbox to delete only requests for this course that are selected as "Alternate."	
What to Delete	Select whether you want to apply the changes to the first occurrence or all occurrences of students' course requests. Deleting only the first occurrence of a request is useful for removing duplicate student course requests.	

7. Click Submit. The Changes Recorded page appears.

POWERSCHEDULER REPORTS:

These reports will assist you in compiling data to complete your master schedule.

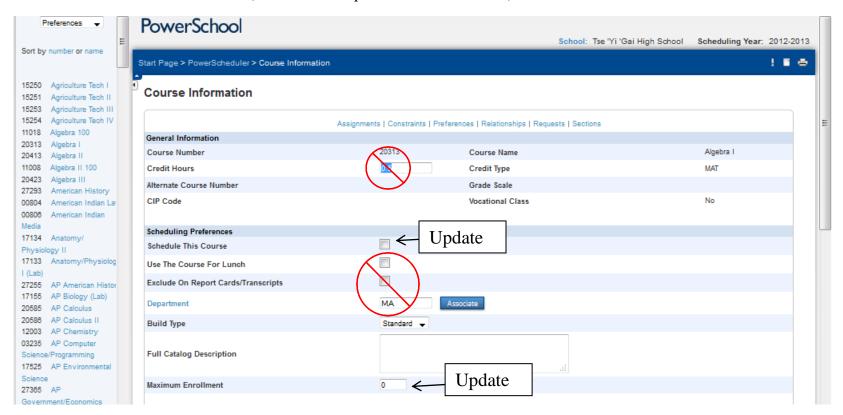
- 1. In PowerScheduler, click on Reports
- 2. If you have a created a current selection of students you want to run the report for, then click the box next to the report, then click on the report name.
- 3. If you want the report ran for ALL students then do NOT click the box next to the report. Just click the report name.
- 4. The frequently used reports are highlighted.



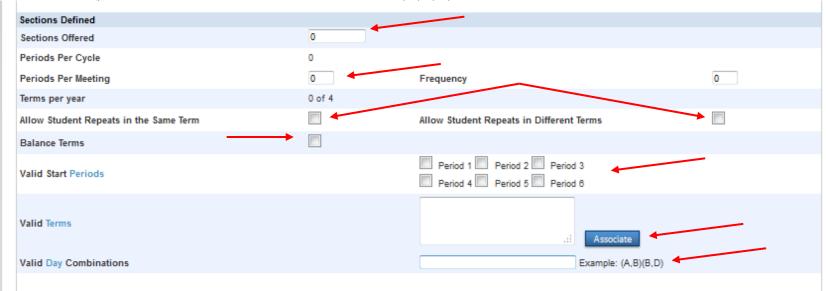
Click here to access reports!

COURSE SETUP:

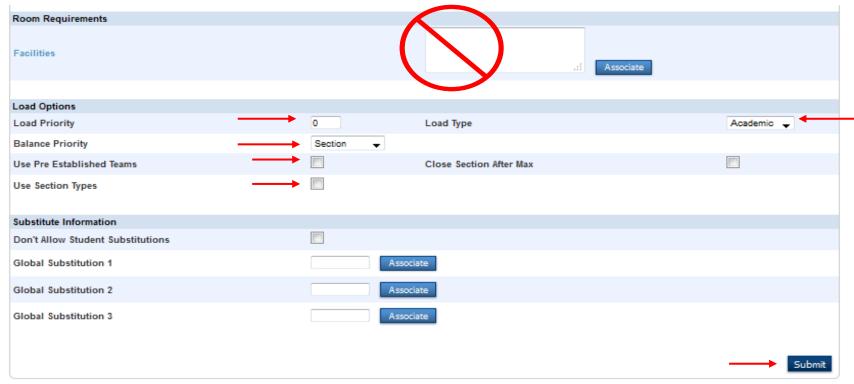
- 1. In PowerScheduler, click on Courses
- 2. Courses are used District Wide. There are three changes that will affect other schools who use the same course number. Do **NOT** change the following:
 - a. Credit Hours
 - b. Use this course for lunch
 - c. Exclude on Report Cards/Transcripts
 - d. Department
- 3. **DO** update the following:
 - a. Schedule this course. If you don't check this, then the course will not get scheduled.
 - b. Maximum Enrollment (refer to state requirements for class size)



- 4. Sections Defined: Enter the number of sections that are going to be offered of this course for the entire year.
 - a. If students are required to take this course the whole entire year, then do not count it as semesters, count it only as a year long course. Remember, yearlong courses are split just before committing of the schedule.
 - b. If the course is semester long, then count each section X2
- 5. Periods Per Meeting: Enter the number of periods this course will span. For example, if the course spans over two periods or three periods then this field would have a 2 or 3. For only a couple of exceptions, most courses will be a 1.
- 6. Allow Student Repeats in the Same Term and Allow Student Repeats in Different Terms, are only used if the student is taking the same course twice. In the same term, or in different terms. This option has never been used, leave blank for now, can be updated if necessary.
- 7. Balance Terms: Only used for semester or quarter long courses. Do check if this course meets those criteria.
- 8. Valid Start Periods: If left blank then the system could schedule this course in period one, if you do not want it to be scheduled in period one then choose the earliest period that it can be scheduled in. Sections can be moved in the scheduler before students are scheduled.
- 9. Valid Terms: Click on Associate and select terms:
 - a. 2015-2016 for yearlong courses
 - b. S1 and/or S2 for courses that are scheduled as semester long
 - c. Q1, Q2, Q3 and/or Q4 for courses that are scheduled as quarter long.
- 10. Valid Day Combinations: All courses should be set as A,B,C,D,E.



- 12. Load Priority: This determines how students are loaded. The number should be in increments of 10.
- 13. Load Type: Drop down menu, select option that best describes this course.
- 14. Balance Priority: Sets how the sections are balanced.
- 15. Use Pre-Established Teams: Must be checked if you are teaming.
- 16. Close Section at Max: Do Not check this option for your first run. Your first build should be free of most constraints so you can see any patterns in the schedule. Once patterns are addressed, then you can set this field.
- 17. Use Section Types: Must be checked if you are using section types in your build.
- 18. Substitute Information: This area is used to "Substitute" a course for the one you are currently working on. For example, if you offered Photography, you have 60 students signed up for it, but it got cut. Instead of changing all of the course requests, you can "Associate" a substitute course number and run the build again. This should not be utilized unless absolutely necessary. An easier way of addressing this type of situation would be to schedule the course and then change the course number just before or after committing the schedule.
- 19. Click Submit.



CREATING & ASSIGNING TEAMS:

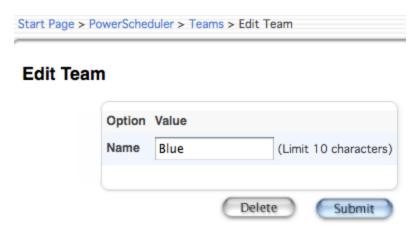
Students, Teachers and Courses can be assigned to teams within PowerScheduler.

Teams are either static or dynamic:

- To define static teams, manually assign each student to a particular team.
- To create dynamic teams, define the team names and assign teachers to the teams, but allow the system to decide which students to assign to which teams for the best possible balance.

To create teams:

- 1. Navigate to PowerScheduler.
- 2. Click Teams from the left hand navigation window.
- 3. Click New.
- 4. Enter a name to identify this team, the system will automatically assign an ID number.



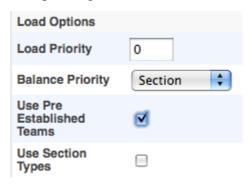
- 5. Click on Teachers from the left hand navigation window.
- 6. Select the teacher you wish to assign to a team.

- 7. Click on Preference from the navigation bar toward the top of the screen.
- 8. Select the corresponding Team Code from the Drop Down, and submit.

er Scheduling Preference: 9 - 2010 Catalog: 2007 - 2008	s - Abram, M	icnaei		
Assignments Constraints Matrix Preferences Schedule				
Required Settings				
Department		Associate		
Preferred Room		Associate		
Maximum Consecutive Periods	3 🗘			
Schedule This Teacher				
Is Always Free?				
Schedule For Lunch				
Optional Settings				
Building Code		Associate		
House Code		Associate		
Team Code				
Maximum Student Load	Blue			

- 9. Click on Students from the left hand navigation window.
- 10. Select the student you wish to assign to a team.

- 11. Click on Preference from the navigation bar toward the top of the screen.
- 12. Select the corresponding Team Code from the Drop Down, and submit.



- 13. Click on Courses from the left hand navigation window.
- 14. Select the Course you wish to assign to a team.
- 15. Click Preference from the navigation bar toward the top of the screen.
- 16. Make sure Use Pre Established Teams is selected.



- 17. Click Sections from the navigation bar toward the top of the screen.
- 18. Select the section you wish to assign a team to.
- 19. Select the corresponding Team Code from the Drop Down, and click Submit.

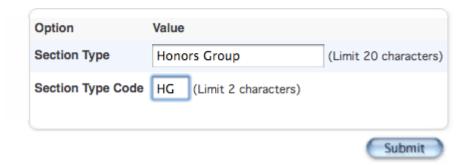
CREATING & ASSIGNING SECTION TYPES:

Use Section Types to create a special section for a course with special characteristic, such as "bilingual" or "contains multiple grade levels":

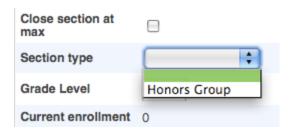
- 1. Navigate to PowerScheduler.
- 2. Click Section Types from the left hand navigation window.
- 3. Click New.
- 4. Enter the description of the Section Type.
- 5. Define a Code to the Section Type.
- 6. Submit the page.



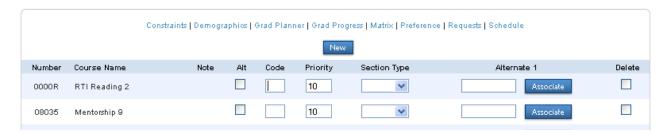
Add/Edit Section Types



- 7. Click the Courses link from the left hand navigation window.
- 8. Select a course.
- 9. Click Sections on the right side of the page just below Course Information.
- 10. Click the section number or new to enter the Edit Section page.
- 11. In the Section Type drop down, select the description of the course you defined in step 4.



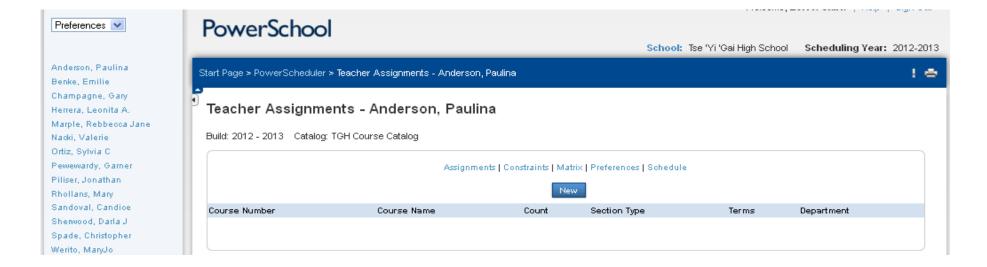
- 12. Section types must also be assigned to students.
- 13. Click on Students link from the left hand navigation window.
- 14. Select a Student
- 15. Click on Requests
- 16. Using drop down menu, click on section type
- 17. Click Submit.



TEACHER - COURSE ASSIGNMENT:

Creating teacher assignments is a very important part of the scheduling process. Teacher assignments define which courses and how many sections of each course a teacher will instruct.

- 1. On the Start Page, choose PowerScheduler from the main menu.
- 2. Under Resources, choose Teachers from the PowerScheduler menu. The teachers menu appears.
- 3. Choose Assignments from the pop-up menu.
- 4. Click the name of the teacher to whom you want to assign courses.
- 5. Click New. That teacher's Edit Teacher Assignment page appears.



6.

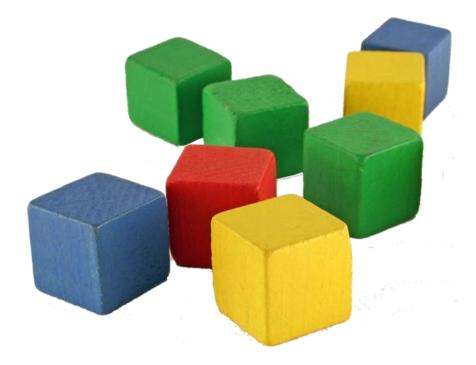
- o **Course Number:** Click Associate to select a course from the active course catalog.
- Section Type: If appropriate, use the pop-up menu to choose the section type. If you use section types, you must indicate which teacher teachers what section type. For example, if Teacher A teaches two sections of course 100, with only one of them being a Spanish section type, you need to create two teacher assignments: for one, choose Spanish and enter 1 in the "Number of Sections" field; for the other, leave the Section Type field blank and enter 1 in the "Number of Sections" field.
- o **Number of Sections:** Enter the number of sections of the course this teacher will instruct.
- o **Schedule Term Code:** Use the pop-up menu to choose the schedule term in which this course is taught. Note: This field only applies to courses that are not year-long.



7. Click Submit. The teacher's Teacher Assignments page appears.

*note: Holders of the certificate in Native American language and culture, pre k-12 may not use this certificate to provide instruction in any other subject matter or discipline, unless they hold a valid PED license authorizing them to provide such instructional services. This means the NLC teachers must have a valid PED license to teach anything other than Navajo Language Culture. This includes Mentoring/study skills courses!

BUILD CONSTRAINTS:



Do not use for the first couple of runs – last resort!

Use a <u>Course Optimize</u> constraint to override the global sampling parameters when scheduling a specific course. For example, if you have a course that you know will be very difficult to schedule, increase both the minimum number of combinations to sample and sampling percentage using this constraint.

Note: You can only define one Course Optimize constraint per course.

- 1. On the start page, choose PowerScheduler from the main menu.
- 2. Under Resources, choose Constraints from the PowerScheduler menu. The constraints menu appears.
- 3. Under Build Constraints, click Course Optimize.
- 4. On the Course Optimize Constraints page, click New. The Edit Course Optimization page appears.
- 5. Use the following table to enter information in the fields:

Field	Description	
Course Number	Click Associate to select the course you want to optimize.	
Minimum number of	Enter the minimum number of combinations you want the system to sample when scheduling this course into the master schedule. For example, if this field on the Edit Build Scenario page is set for 10,000 and you have a course you know	
	will be difficult to schedule, enter 50,000 so that the system will evaluate five times as many combinations as it does for your other courses.	
	Enter the percentage of combinations you want the system to sample when scheduling this course into the master schedule.	
	For example, if this field on the Edit Build Scenario page is set for 75% and you have a course you know will be difficult to schedule, enter 100 to have the system evaluate all possible combinations.	

6. Click Submit. The Course Optimize Constraints page appears.

Start Page > PowerScheduler > Constraints > Course Optimize Constraints > Edit Course Optimization		
Edit Cours	e Optimization	
	Option	Value
	Course Number	CS1002 Associate
	Minimum number of combinations to sample	5,000
	Sampling Percentage	90

Use a <u>Course Restriction</u> constraint to restrict sections of a course to particular periods and days or to meet any time except the specified periods and days. For example, use this constraint to force three sections of a five-section course to schedule at the same time. The system normally spreads the sections out over different periods. With this constraint, you can force them to be scheduled where you want.

- 1. On the start page, choose PowerScheduler from the main menu.
- 2. Under Resources, choose Constraints from the PowerScheduler menu. The constraints menu appears.
- 3. Under Build Constraints, click Course Restrict.
- 4. On the Course Restrictions Constraints page, click New. The Edit Course Restriction page appears.
- 5. Use the following table to enter information in the fields:

Field	Description	
Course Number	Click Associate to select the number of the course you want to restrict.	
Term	Use the pop-up menu to choose to which term you want this constraint to apply.	
Schedule	Select the checkbox next to each period in each day that you want this course to be taught.	
Applies to days only	Select this checkbox to apply this constraint to only the day(s) specified in the Schedule checkboxes. The system does not consider periods and terms for this constraint.	
Applies to periods only	Select this checkbox to apply this constraint to only the period(s) specified in the Schedule checkboxes. The system does not consider days and terms for this constraint.	
Applies to term only	Select this checkbox to apply this constraint to only the term specified in the Term pop-up menu. The system does not consider days and periods for this constraint.	
Minimum Number of Sections	Enter the minimum number of sections you want to restrict. * Note: If the "Minimum Number of Sections" and "MaximumNumber of Sections" fields are both 0, then this course can be taught in any period or day except the one(s) indicated.	
Maximum Number of Sections	Enter the maximum number of sections you want to restrict. *Note: If the "Minimum Number of Sections" and "MaximumNumber of Sections" fields are both 0, then this course can be taught in any period or day except the one(s) indicated.	
Section Type	If the course section you want to restrict has a section type, usethe pop-up menu to choose it. If a course has five sections and the two sections you want to restrict contain section types, you must create two constraints.	

6. Click Submit. The Course Restrictions Constraints page appears.

Use a <u>Course Room</u> constraint to assign a course to a particular room. For example, you could force the Computer-Aided Drafting class to be taught in the Computer Lab rather than the Shop.

- 1. On the start page, choose PowerScheduler from the main menu.
- 2. Under Resources, choose Constraints from the PowerScheduler menu. The constraints menu appears.
- 3. Under Build Constraints, choose Course Room.
- 4. On the Course Room Constraints page, click New. The Edit Course Room Constraint page appears.
- 5. Use the following table to enter information in the fields:

Field	Description
Course Number	Click Associate to select the number of the course you want to assign to a particular room.
Room	Click Associate to select the room in which you want this course to be scheduled.
Teacher	Click Associate to select the teacher who will be instructing this course. Note: This constraint only applies to the sections of this course taught by the teacher you select. If you do not select a teacher, this constraint applies to all sections of the selected course.

6. Click Submit. The Course Room Constraints page appears.

Edit Course Room Constraint

Option
Course Number
THR1000
Room
Teacher (optional)

Start Page > PowerScheduler > Course Room Constraint > Edit Course Room Constraint

Option Value
Associate
Associate

Associate

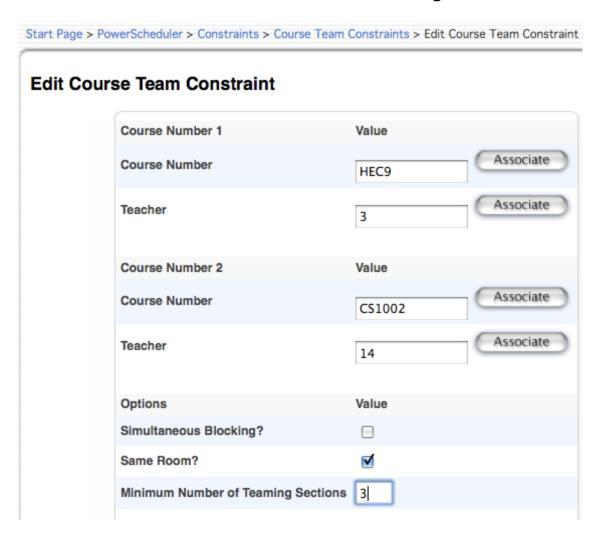
Use a <u>Course Team</u> constraint to block teachers and courses together so that certain courses can only be taught at the same time as certain other courses. For example, a jazz band instructor can only teach a jazz band course when a jazz choir instructor leads a jazz choir class (or vise-versa).

A blocking course relationship requires Course 1 and Course 2 to have the exact same number of sections. A Course Team constraint allows Course 1 and Course 2 to offer different numbers of sections, as long as there is at least one section of each using the blocking specified.

Note: The order of the courses is irrelevant.

- 1. On the start page, choose PowerScheduler from the main menu.
- 2. Under Resources, choose Constraints from the PowerScheduler menu. The constraints menu appears.
- 3. Under Build Constraints, click Course Team.
- 4. On the Course Team Constraints page, click New. The Edit Course Team Constraint page appears.
- 5. Use the following table to enter information in the fields:

Field	Description
Course Number 1	Click Associate next to the Course Number field to select the name of the first course you want to team together. Click Associate next to the Teacher field to select the name of the teacher instructing this course.
Course Number 2	Click Associate next to the Course Number field to select the name of the course you want to team with Course Number 1. Click Associate next to the Teacher field to select the name of the teacher instructing Course Number 2.
	Select this checkbox if you need these two courses to be scheduled at the same time. Otherwise, any other blocking course relationship (such as Before or After) prevails.
Same Room	Select this checkbox if you want to force both courses to be scheduled in the same room.
Teaming Sections	Enter the minimum number of sections of these courses that will be teamed together. For example, if each course has four sections but you enter 2 in this field, then only two of the four sections will be teamed.

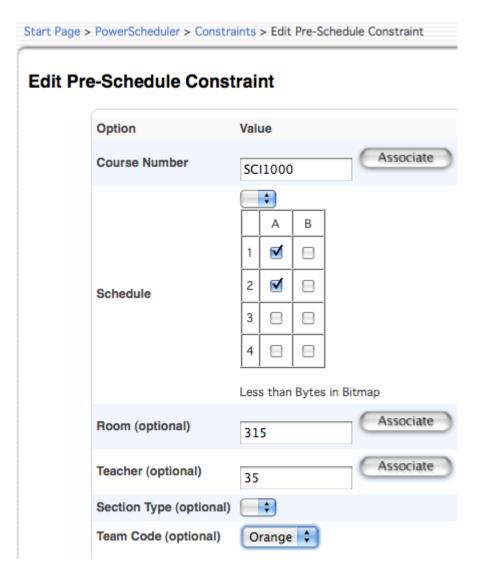


6. Click Submit. The Course Team Constraints page appears.

Use a <u>Pre-Schedule</u> constraint to schedule sections of a course ahead of time when you already know exactly when and where they must meet in the master schedule. For example, use this constraint to schedule sections of Band in sixth and seventh periods, which is the only time the band teacher is available.

- 1. On the start page, choose PowerScheduler from the main menu.
- 2. Under Resources, choose Constraints from the PowerScheduler menu. The constraints menu appears.
- 3. Under Build Constraints, click Pre-Schedule.
- 4. On the Pre-Schedule Constraints page, click New. The Edit Pre-Schedule Constraint page appears.
- 5. Use the following table to enter information in the fields:

Field	Description
Course Number	Click Associate to select the number of the course you want to preschedule.
	Select the checkbox next to each period in each day that you want to schedule this course.
	For example, if you have a one-day schedule and select Period 1 and Period 2, a section of this course will span periods 1 and 2 every day. Alternatively, if you have a two-day schedule and select Period 1 for both days, the section will meet every day during first period.
Room	Click Associate to select the number of the room in which you want to preschedule this course.
Teacher	Click Associate to select the name of the teacher who instructs the course you want to preschedule.
Section Type	If the section of the course you want to preschedule has a section type, use the pop-up menu to choose it. Note: If you want to preschedule two sections of the same course, one of which has a section type, you must create two constraints.
Team Code	If the section of the course you want to pre-schedule is associated with a teacher team, use the pop-up menu to choose it.



6. Click Submit. The Pre-Schedule Constraints page appears.

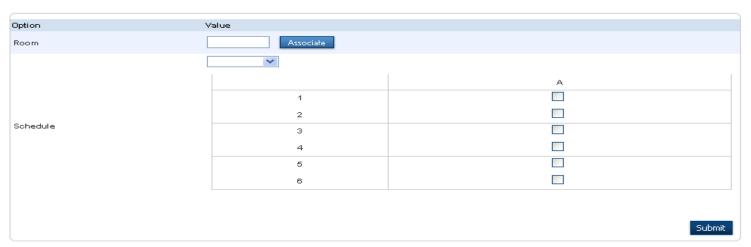
Use a **Room Free** constraint to block a room from being scheduled for a particular term, day, and period. For example, use this constraint to keep a classroom free during the last period of the day for after school detention.

- 1. On the start page, choose PowerScheduler from the main menu.
- 2. Under Resources, choose Constraints from the PowerScheduler menu. The constraints menu appears.
- 3. Under Build Constraints, click Room Free.
- 4. Click New. The Edit Room Free Constraint page appears.
- 5. Use the following table to enter information in the fields:

Field	Description	
Room	Click Associate to select room you want to keep free when scheduling.	
	Use the pull-down menu to select the term in which this constraint applies.	
	Select the checkbox next to each period in each day that you want keep this room free. For example, select the checkboxe(s) across the first row if you want to keep the room free during the first period of	
	each day.	

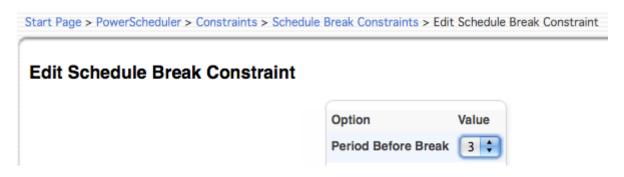
6. Click Submit. The Room Free Constraints page appears.

Edit Room Free Constraint



Use a <u>Schedule Break</u> constraint to add flexibility to teachers' max-in-a-row count. For example, if your teachers can instruct a maximum of three periods in a row, work around this by putting a 10-minute homeroom period after Period 2. This would make it possible to schedule teachers for Periods 1 through 5.

- 1. On the start page, choose PowerScheduler from the main menu.
- 2. Under Resources, choose Constraints from the PowerScheduler menu. The constraints menu appears.
- 3. Under Build Constraints, click Schedule Break.
- 4. On the Schedule Break Constraints page, click New. The Edit Schedule Break Constraint page appears.
- 5. Choose the period after which you want to insert a break in the schedule from the pop-up menu.



6. Click Submit. The Schedule Break Constraints page appears.

Use a <u>Teacher Free</u> constraint to specify those periods when a teacher must be free, such as when teaching at another school. This is the opposite of the Teacher Part-Time constraint.

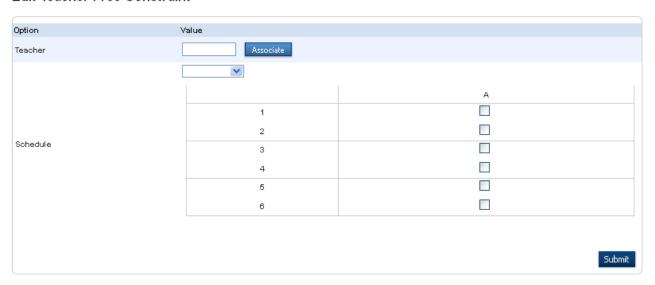
- 1. On the start page, choose PowerScheduler from the main menu.
- 2. Under Resources, choose Constraints from the PowerScheduler menu. The constraints menu appears.
- 3. Under Build Constraints, click Teacher Free.
- 4. On the Teacher Free Constraints page, click New. The Edit Teacher Free Constraint page appears.
- 5. Use the following table to enter information in the fields:

Field	Description
Teacher	Click Associate to select the name of the teacher who you want to be free during certain periods of the day.

Field	Description
Schedule	Use the pop-up menu to choose the term to which you want to apply this constraint.
	Select the checkbox next to each period in each day that you want this teacher to be free.

6. Click Submit. The Teacher Free Constraints page appears.

Edit Teacher Free Constraint



COURSE RANK:

The Course Rank in PowerScheduler 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.

First, the system builds the course rank based upon the following items (listed in no specific order):

- Sections offered on the course
- Request conflicts
- Pre-Schedule and Course Restrict Constraints
- Length of each section (periods/days/terms)
- Block Relationships with other courses

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

For example, courses that are offered only once per term are scheduled before multiple courses because there are fewer choices. Scheduling these courses first assures a better schedule for the students that request courses offered once per term.

It is important to keep the course rank file up-to-date as you build your schedule and adjust your courses, teachers, constraints, and

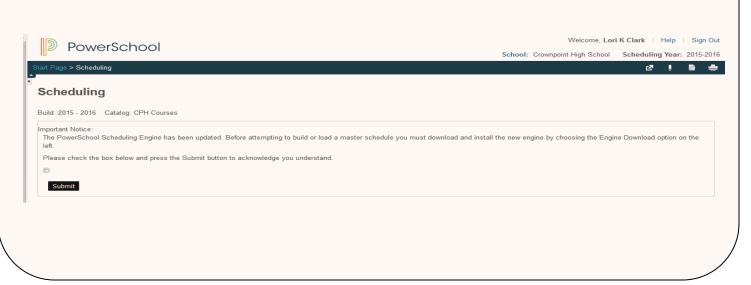
other parameters.

In PowerScheduler:

- 1. Click on Course Rank
- 2. For the first build, click on Build Rank
- 3. Any changes made after build, click on Update Rank

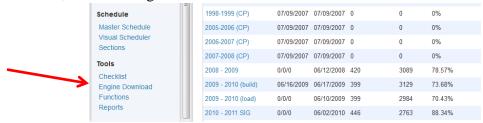


NEW: Make sure you click the bubble and sumit, then download a new version, even if you had downloaded one last year!

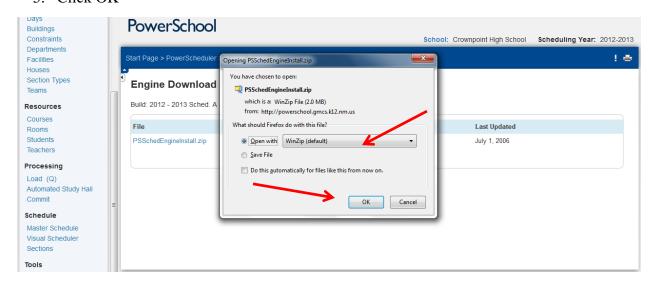


Power Scheduler Engine Download:

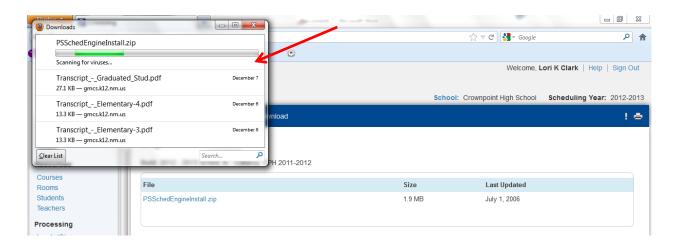
- 1. Click on PowerScheduler
- 2. Under Tools, Click on Engine Download



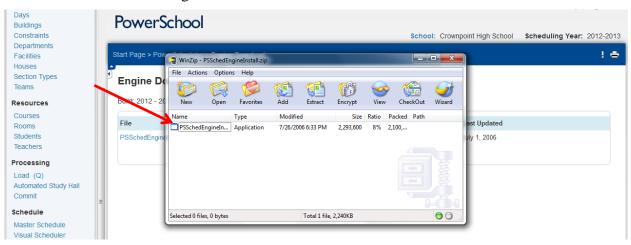
- 3. Click on PSSchedEngineInstall.zip
- 4. Open With WinZip call Help Desk if you do not have this option
- 5. Click OK



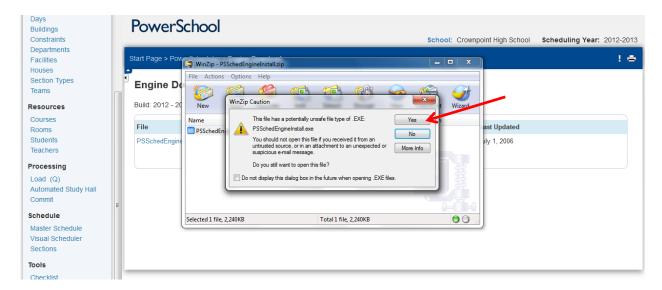
- 6. You will see a download progress page
- 7. When it is done downloading, you will see a WinZip download page.



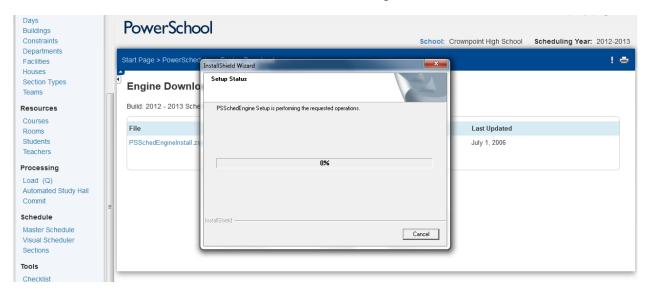
8. Click on PSSchedEngineInstall



9. This file is OK to download – click yes on the Caution pop-up window.



10. The file will download, click Finish when it completes.



THE BUILD:

Once all student, teacher and course information is updated and you have successfully downloaded the PSScheduling Engine to your computer, then your next step is to validate a build. The Validation process checks your data for errors. Once the errors are fixed then you can proceed with a build, import the new master schedule and tweak as necessary before loading students into it.

A build also does a load, but I would call it a "rough" load. The load that happens during a build does NOT:

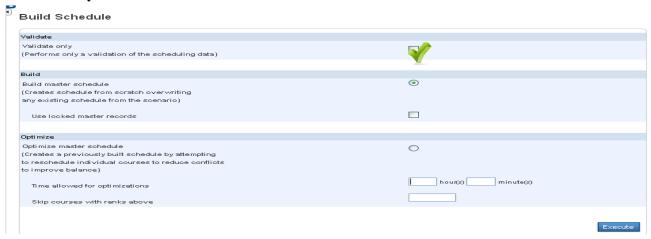
- honor max class sizes
- use alternates

The process is to typically run builds until you have the best one possible, THEN run just loads, where you then have the option to honor the max class sizes and plug in alternate requests.

The reason the build doesn't have as many options for loading is that the function of a build is to BUILD the best schedule possible with the fewest conflicts. It does not need to honor max class sizes or use alternates for that purpose, so it maximizes resources toward what is important for a build. But of course you can then run loads to optimize the load.

The other advantage of load only is that you can select just one student or a group of students and run the load just for them, useful for late walk-ins or for spot fixing schedules, such as when you discover a mistake they made in their requests.

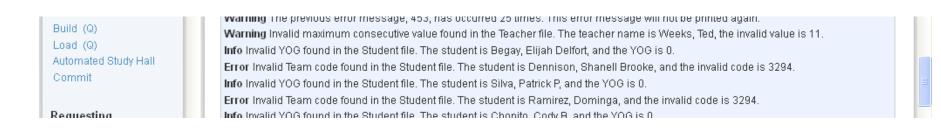
- 1. In PowerScheduler, Under Processing, click on Build
- 2. Click the box for Validate Only
- 3. Click Execute



4. Once Validation has completed, click on the (Q) next to Build and click on View under Results Log.



- a. Any other items listed will not prevent the scheduler from creating the master schedule; however, they could have a If you see "Error": Look at the error closely, you will need to rectify it before you can proceed with the build.
- b. Depending on how sections are created. It is a best practice to clear the entire list, and then proceed with the build.

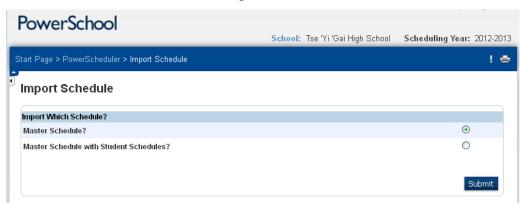


- 5. Once you have cleared the Validation list, then click on Build.
 - a. Do NOT click on Validate Only
 - b. For the first build, do NOT click on "Use locked master records"
 - i. Use this option, if you hand select where and when a section will be placed.
- 6. Use the Optimize to improve your schedule. It will take the last built schedule and try to improve it. This can take a very long time to run.
- 7. Once the process has completed, click on the (Q) next to Build
- 8. You should now see the validation build you just ran.

- 9. Click on the Results Log
 - a. Check for errors and warnings
 - b. When you have a successful build, click Import. This option will bring the current build into the Scheduler, where you can view it.
 - i. Go to reports, run Master Schedule PDF
 - ii. In PowerScheduler, click on Master Schedule
 - iii. In PowerScheduler, click on Sections
 - iv. In PowerScheduler, click on Teachers and then Sections
- 10. A validation or build can be run as many times as necessary to get the build you desire.
- 11. Once you have a complete Build, you will have to "IMPORT" it, to run reports to check your schedule
 - a. Click on the "Q" under build
 - b. Click on "Import" for the best build



c. Choose Either Master Scheduled or Master Schedule with Student Schedules, click Submit; this can be done a number of times, data is overwritten with each import.



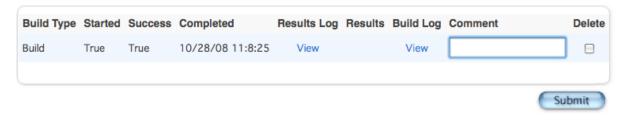
COMMON BUILD ERRORS:

The following error messages may display in the Build Results Log during the PowerScheduler Build process. Related error messages described in this list may not be listed together when viewing the Build Results Log.

Note: Course and student names in this article are examples.

To access the Build Log Results, navigate to Start Page > PowerScheduler and click on the (Q) next to Build. On the Build Master Schedule Queue" page, click on "View" under "Results Log."

Build Master Schedule Queue



Example Errors:

Error The build could not schedule course: [Course Number]: [Course Name] - The reason the course couldn't be scheduled is unknown.

Make sure that the cited Courses' Preference, if it has more than 1 period-per-meeting, has at least a matching number of Valid Start Periods checked.

Error The file room does not contain any valid data.

Rooms are not set up to be scheduled. Verify that **Use for Scheduling** is selected on the **Add/Edit Room** page for all rooms used for scheduling.

Error The file course does not contain any valid data. Check the rank!

Courses are not marked to be scheduled. Verify that **Schedule This Course** is selected on the **Course Information** page for all courses to be scheduled.

Error The file teacher does not contain any valid data.

Teachers are not marked to be scheduled. Verify that sure **Schedule This Teacher** is selected on the **Staff Scheduling Preferences** page for each teacher to be scheduled.

Error The file student does not contain any valid data.

Students are not marked to be scheduled. Verify that **Schedule This Student** is selected on the **Scheduling Setup** page for each student to be scheduled.

Error The file tchasgn does not contain any valid data.

The courses and number of sections of each course the teacher will teach has not been assigned. Add assignments for the teachers to be scheduled.

Error The file request does not contain any valid data.

Student course requests have not been entered. Create course requests by manually adding requests on the students' Requests screen, using the Mass Add Requests function, utilizing an import, or setting up Student Request screens.

Error Invalid number of sections. The course is [Course Number]: [Course Name], the section count is 0.

The number of sections offered is not defined. To define the number of sections, navigate to PowerScheduler > Courses > Course Selection > scroll down to "Sections Offered" and populate a value.

Error Invalid term length found in the Course file. The course is $[Course\ Number]$: $[Course\ Name]$, the invalid term length is 0.

The course does not have any terms associated with it. To associate terms, navigate to the Course Information page at: PowerScheduler > Courses > Course Selection > scroll down to "Valid Terms," click on the "Associate" button, select a term, click Submit, then submit the Course Information page.

Error Invalid course PPM found in the Course file. The course is $[Course\ Number]$: $[Course\ Name]$, the invalid course PPM value is 0 (must be > 0 and <= PeriodsPerDay).

The course does not have a value for periods per meeting. To enter a value for periods per meeting, navigate to the Course Information page at: PowerScheduler > Courses > Course Selection > scroll down to "Periods Per Meeting," enter the appropriate value, then submit the page. For example, if the students attend the course for two periods, then enter 2 as a value.

Error Invalid course frequency found in the Course file. The course is $[Course\ Number]$: $[Course\ Name]$, the invalid frequency value is 0 (must be > 0 and <= DaysPerCycle).

The course does not have a value entered for course frequency. To enter a value for course frequency, navigate to: PowerScheduler > Courses > Course Selection > scroll down to "Frequency" and enter the appropriate value.

Frequency is the number of times that a course meets during a cycle. For example, if there are four days in the cycle (A,B,C,D) and the course meets on all four days, then the frequency is 4. If the course meets every other day, then the frequency is 2.

Error Invalid meetings per cycle value found in the Course file. The course is [Course Number]: [Course Name], the invalid value is 0.

The course does not have value entered for "Periods Per Cycle." This number is calculated automatically by multiplying the Periods Per Meeting by the Frequency. If labs are included, then the formula is as follows: Periods per meeting multiplied by Frequency plus Lab Periods per meeting multiplied by Lab frequency = Periods per cycle. These settings are entered on the Course Information page at: PowerScheduler > Courses > Course Selection.

Info Invalid schedule type found in the Course file. The course is $[Course\ Number]$: $[Course\ Name]$, the invalid value is .

The course does not have value entered for "Sched_LoadType" on the ScheduleCourseCatalogs table record for this course. This value is selected from a pull down list on the PowerScheduler > Courses > Course Selection page, with the options 'Standard', 'Lab', or 'LabFloat'. Verifying one of these selections are selected on the courses' preferences page then submitting this page will correct this error.

Error Invalid term length found in the Course file. The course is $[Course\ Number]$: $[Course\ Name]$, the invalid term length is 0.

Valid terms have not been set up for the course. Associate valid terms on the Course Information page for each listed course.

Error The Student requests multiple times of the same course, but the course does not allow repeating requests. The student name is [Student Last, FirstName], and the course is [Course Number].

The named student has more requests for a course than the course currently allows. Delete extra requests so that the student has only one request for the course.

If students are permitted to enroll in a course more than once in the same term, select **Allow Student Repeats in the Same Term** on the **Course Information** page.

If students will be permitted to enroll in a course in more than one term, select **Allow Student Repeats in Different Terms**.

Error The Constraint file contains an invalid section. The constraint type is LabLink, the course number is [Course Number], the section number is 1. This constraint was ignored.

Sections have been created either manually or during a previously imported build which have a **Section Link constraint** assigned to them. This can occur when a **Block Term relationship** is created for two courses while Building a schedule and the results of the Build have been imported. The courses will typically occur in pairs, though not necessarily consecutively in the Results Log list.

To correct this error, select the "Use locked master records" radio button on the Build Schedule page before executing the Build. This will result in the Build process continuing from the point of the last imported Build and will allow the sections and constraints previously built to remain intact. If it is desired to completely rebuild a previously imported schedule, the Section Link constraints must be deleted at: PowerScheduler > Constraints > Section Links.

Error Invalid section count found in the Course file. The course is $[Course\ Number]$: $[Course\ Name]$, the section count is 2, and the assignment section count is 0.

The number of sections defined to be created for the course does not match the number of sections assigned to teachers who will be scheduled.

Error Invalid course found in the Course Link file. The course is [Course Number]. Error Invalid related course found in the Course Link file. The course is [Course Number], the related course (invalid) is [Course Number].

These related error messages indicate that a relationship assigned to the two courses is invalid. This is typically a result of different course setup parameters for the two courses. For example, the number of periods and/or days each course meets must be identical when using a Block Term relationship.

Error Invalid valid term found in the Course file (does not match the term length). The course is $[Course\ Number]$: $[Course\ Name]$, the course term length is 2.

Error The Teacher Assignment file contains an invalid course. The teacher is [Teacher Last, FirstName], the course is [Course Number].

Error The Teacher Assignment file contains an invalid term. The teacher is [Teacher Last, FirstName], the course is [Course Number] and the invalid term is 10-11.

These error messages typically occur when an existing Master Schedule has been copied into a Build and Load scenario in PowerScheduler and a Build is attempted. To correct the errors, delete the copied Master Schedule or re-associate the valid terms on the Course Information page for each listed course.

```
Bitmap Errors
[Qty: 1, Rel: 10] Dropped because teachers could not use it (DropBmpTch)

[Course Number]: [Course Name] - Crs [Number]: [Term] [Period(Day)], Crs
[Number]: [Term] [Period(Day)], Crs [Number]: [Term] [Period(Day)]

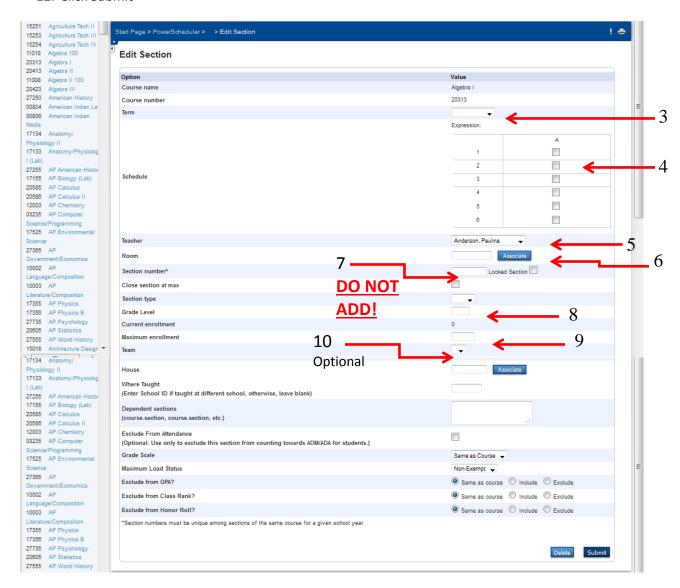
Teacher Assignment Errors
[Qty: 1, Rel: 50] Teacher could not teach bitmap because that would make future courses fail to scedule. (FuturAssgn) [Course Number]: [Course Name]

** Advice **
suggest turning off future assignment checking for more information.
```

If there is a Facility associated to that Course, make sure that the assigned teacher's room also has that Facility tied to it and that the room is set to 'Facility Use Only'. Otherwise, remove the Facilities preferences from both the Course and the Room.

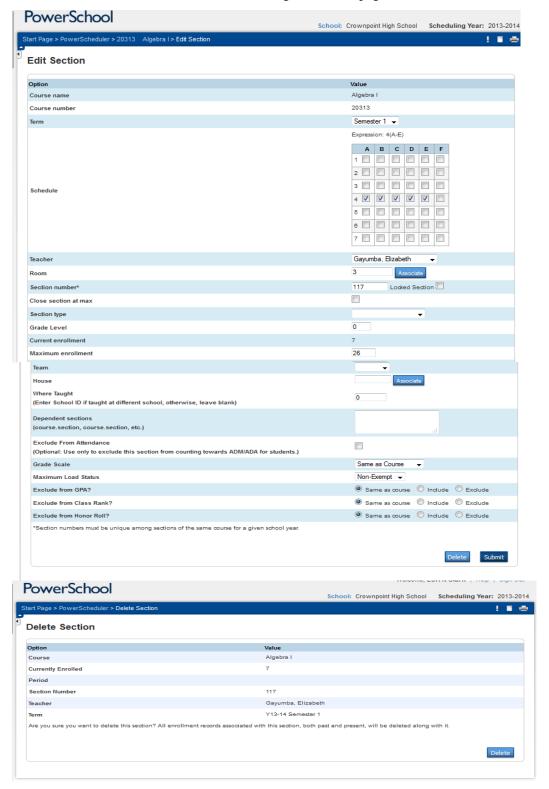
Create New Section

- 1. In PowerScheduler, click on Sections
- 2. Click on course, then click New
- 3. Choose Term
 - a. Sections that meet for the whole year should be scheduled as 2016-2017
 - i. They will be split into semesters before your schedule is committed
 - b. Ex:
- 4. Choose Period
- 5. Choose Teacher
- 6. Click Associate to assign Room Number
- 7. **DO NOT add Section Number**. System will automatically generate this number.
- 8. Grade Level is optional; however, if the class is primarily for a specific grade level, then add that grade level in this field.
- 9. Add Maximum Enrollment. The total number of students that can be in this class this period.
- 10. If using Teams, then assign. Can be left blank.
- 11. Do not update the rest of the page; the system will use the defaults at the course level to populate.
- 12. Click Submit



Deleting Sections – In the Scheduler ONLY! THIS CANNOT BE UNDONE!!!

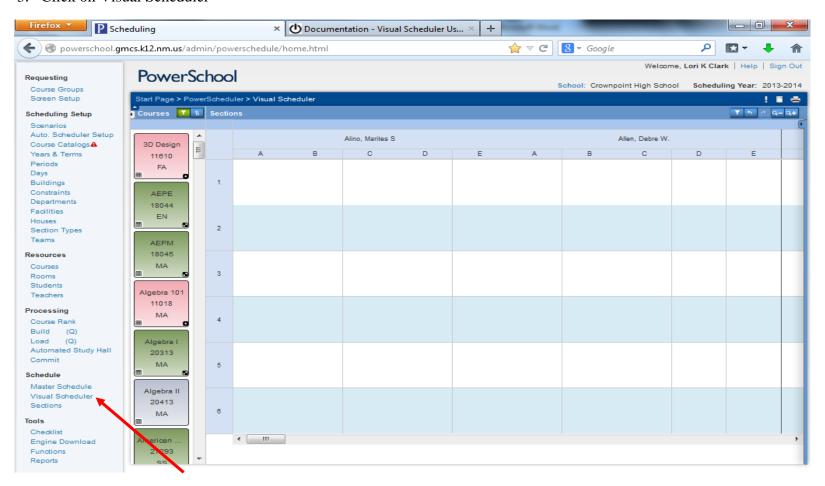
- 1. Go to Sections
- 2. Click on Course
- 3. Click on the Section Number of the course you want to delete
- 4. Click Delete and then click Delete again on next page.



Visual Scheduler

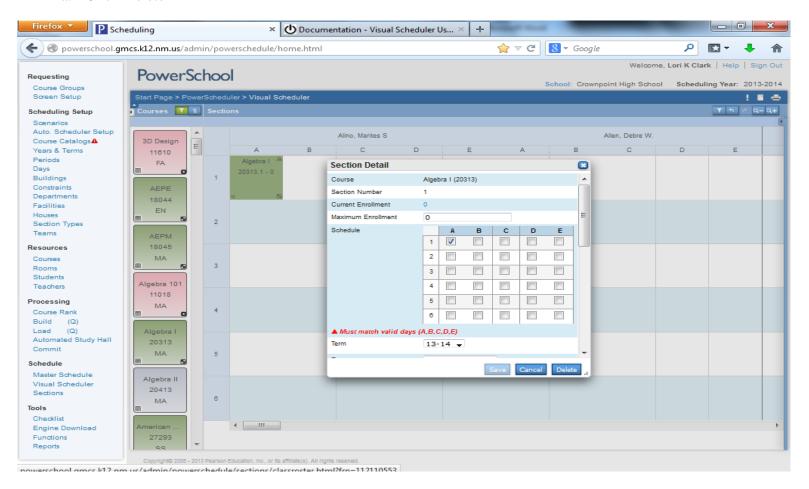
Another option to add, move and delete sections!

- 1. Go to PowerScheduler
- 2. SCHEDULING Set up items must be completed first
- 3. Click on Visual Scheduler



Click on Course listed to the left

- a. Drag course to the A box for the period the course should meet
- 6. Click on the newly created section and mark Days A,B,C,D,E
- 7. Click Save
- 8. To move a section, left mouse click on the section and drag it to the next period
- 9. To delete a section, left mouse click on the course in the Visual Schedule
 - a. Click Delete



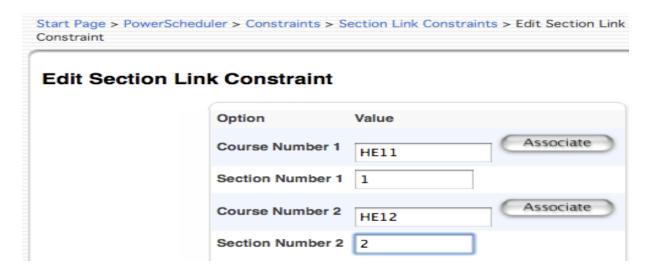
LOAD CONSTRAINTS:

Use a <u>Section Link</u> constraint to specify that if students are enrolled in one course section, they must also be enrolled in another, specific course section.

- 1. On the start page, choose PowerScheduler from the main menu.
- 2. Under Resources, choose Constraints from the PowerScheduler menu. The constraints menu appears.
- 3. Under Load Constraints, choose Section Link.
- 4. On the Section Link Constraints page, click New. The Edit Section Link Constraint page appears.
- 5. Use the following table to enter information in the fields:

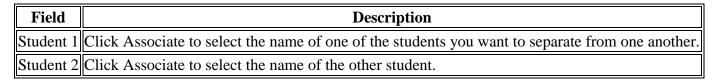
Field	Description	
Course Number 1	Click Associate to select the name of one of the courses for which you want to link a section.	
Nection Number I	Enter the section number of the course in the Course Number 1 field that you want to link to another course section.	
Course Number 2	Click Associate to select the name of the other course for which you want to link a section.	
Section Number 2	Enter the section number of the course in the Course Number 2 field that you want to link to the section in the Section Number 1 field.	

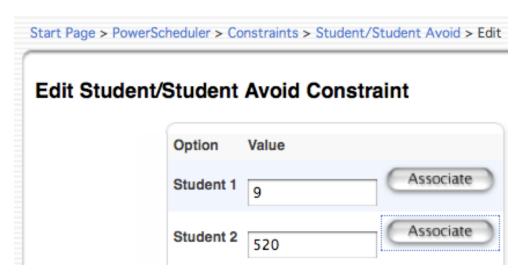
6. Click Submit. The Section Link Constraints page appears.



Use a **Student Avoid** constraint to specify that two selected students cannot be scheduled into any of the same course sections.

- 1. On the start page, choose PowerScheduler from the main menu.
- 2. Under Resources, choose Constraints from the PowerScheduler menu. The constraints menu appears.
- 3. Under Load Constraints, choose Student Avoid.
- 4. On the Student/Student Avoid Constraints page, click New. The Edit Student/Student Avoid Constraint page appears.
- 5. Use the following table to enter information in the fields:

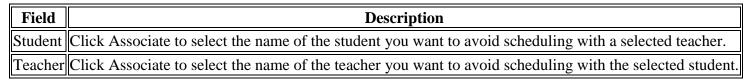


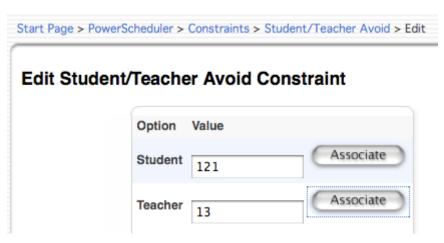


6. Click Submit. The Shtudent/Student Avoid Constraints page appears.

Use a **Student/Teacher Avoid** constraint to specify that a student and a teacher cannot be scheduled into any of the same course sections.

- 1. On the start page, choose PowerScheduler from the main menu.
- 2. Under Resources, choose Constraints from the PowerScheduler menu. The constraints menu appears.
- 3. Under Load Constraints, choose Teacher Avoid.
- 4. On the Student/Teacher Avoid Constraints page, click New. The Edit Student/Teacher Avoid Constraint page appears.
- 5. Use the following table to enter information in the fields:





6. Click Submit. The Student/Teacher Avoid Constraints page appears.

THE LOAD:

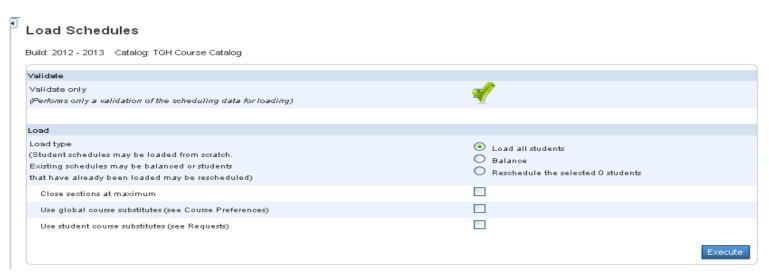
Once you have built a satisfactory master schedule, you can begin fine-tuning student schedules by running a load. While this function has no impact on the number of students enrolled in courses, it could have a positive effect on section balances.

It is possible that during your first load, you gain eight students in one course, five students in another, and ten in a third. Then, you can try again to help individual students get all of their course requests.

<u>Do not load students into your master schedule until you are satisfied with it</u>. Loading will not have any impact on the structure of the schedule, just on the placement of students within it. Also, <u>do not</u> make manual adjustments to student schedules and then reload students; the system will overwrite all of the changes you made.

Loading is required in most cases. You need to load if you entered alternate course requests or global substitutions, or if you chose to close course sections at a maximum number. The build process does not consider these factors, which are not met unless you load. Also, if you are making manual adjustments to your master schedule, you need to do a load under most circumstances.

- 1. In PowerScheduler, under Processing, click on Load
- 2. For the first Load, you need to run a Validation.
- 3. In PowerScheduler, Under Processing, click on Load
- 4. Click the box for Validate Only
- 5. Click Execute

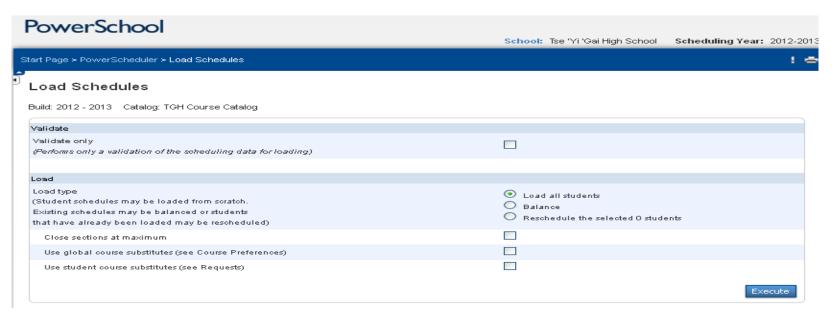


- 6. You should now see the validation load you just ran.
- 7. Click on the Results Log
 - a. If you see "Error": Look at the error closely, you will need to rectify it before you can proceed with the load.



- b. Any other items listed will not prevent the scheduler from creating the student schedules; however, they could have a bearing on how sections are filled. It is a best practice to clear the entire list, and then proceed with the load.
- 8. Once you have cleared the Validation list, repeat step 1 then:
 - a. Do NOT click on Validate Only
 - b. For the first Load, click on "Load all students"
 - c. When you have a successful load, click Import. This option will bring the student schedules into the Scheduler, where you can view them.
 - i. Go to reports, run Master Schedule PDF
 - ii. In PowerScheduler, click on Master Schedule
 - iii. In PowerScheduler, click on Sections
 - iv. In PowerScheduler, click on Teachers and then Sections
 - v. In PowerScheduler, click on Students and then schedule
 - vi. In PowerScheduler, run Post Build reports:
- 9. A validation or load can be run as many times as necessary to get the build you desire.

- 10. To optimize the Load, you can rerun and select:
 - a. Balance to direct the system to balance sections
 - b. Reschedule the selected students to only reload the students you have added new requests or changed requests for.
 - c. Close Sections at max to direct the system to overload sections.
 - d. Use Global Substitutions must be set at the course level first. (see Scheduling-Course Setup)
 - e. Use Student Course Substitutes must be set at student course request level first.



- 11. Once you have a complete LOAD, you will have to "IMPORT" it, to run reports to check student schedules.
 - a. Click on the "Q" under load
 - b. Click on "Import" for the load with the highest results; This can be done a number of times, data is overwritten with each import.



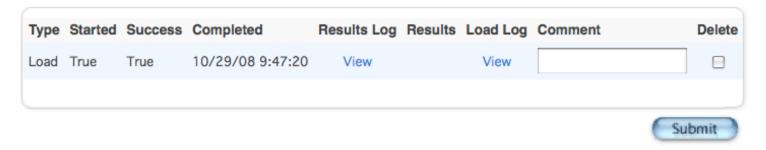
COMMON LOAD ERRORS:

The following error messages may display in the Build Results Log during the PowerScheduler Build process. Related error messages described in this list may not be listed together when viewing the Build Results Log.

Note: Course and student names in this article are examples.

To access the Load Log Results, navigate to Start Page > PowerScheduler and click on the (Q) next to Load. On the Load Student Schedules Queue" page, click on "View" under "Results Log."

Load Student Schedules Queue



Examp	le	Errors :
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Error The file master does not contain any valid data.

There is no Master Schedule. Create a new Master Schedule either manually by creating new sections for each course to be scheduled, or using the PowerScheduler Build process. Alternately, copy an existing Master Schedule from a previous year into PowerScheduler using the **Copy Master Schedule** function available under PowerScheduler > Functions.

Error The Master file contains an invalid schedule. The schedule does not match the Term code. The section is XXXX-00000X. This section was dropped.

A Load-Only scenario in PowerScheduler assumes no changes will be made to the basic 'shape' of the Master Schedule being copied, i.e. number of Days/Periods, Terms etc. If such changes must occur, then the schedule will have to be built in order to register the needed changes.

Error The Master file contains an invalid schedule. The section is XXXXX-00000X. This section was dropped.

Check the expression of the listed Section. Adding an expression will usually solve this error.

Error The file student does not contain any valid data.

Students are not set to be scheduled. Complete the required fields on the students' **Schedule Setup** pages.

Required fields for students are:

Next Year Grade Schedule This Student Next School

Error The Master file contains an invalid teacher. The section is XXXXX000-00000X.

The section does not have a teacher associated with it or the assigned teacher is not marked to be scheduled. Verify that the assigned teacher is current and complete the required fields on the teachers' **Schedule Setup** pages. Also verify that the section is associated with a teacher.

Required Schedule Setup fields for teachers are:

Schedule This Teacher Maximum Consecutive Periods

Error The file request does not contain any valid data.

Requests have not been created for students, or the next school indicator has not been correctly entered for the student(s). Complete the required fields on the students' **Schedule Setup** pages.

Required fields for students are:

Next Year Grade Schedule This Student Next School

Set up Student Request screens to allow students to input requests, Mass Add requests in PowerScheduler, or import requests using the **Quick Import** function.

Error The Student requests multiple times of the same course, but the course does not allow repeating requests. The student name is Danger, Nick, and the course is XXXX00.

The student has more than one request for the same course, and the course is not currently set up to accept multiple requests. If students are not permitted to repeat the course, delete the extra request(s) from the student's Request page in PowerScheduler.

If students are permitted to enroll in a course more than once in the same term, select **Allow Student Repeats in the Same Term** on the **Course Information** page.

If students will be permitted to enroll in a course in more than one term, select **Allow Student Repeats in Different Terms**.

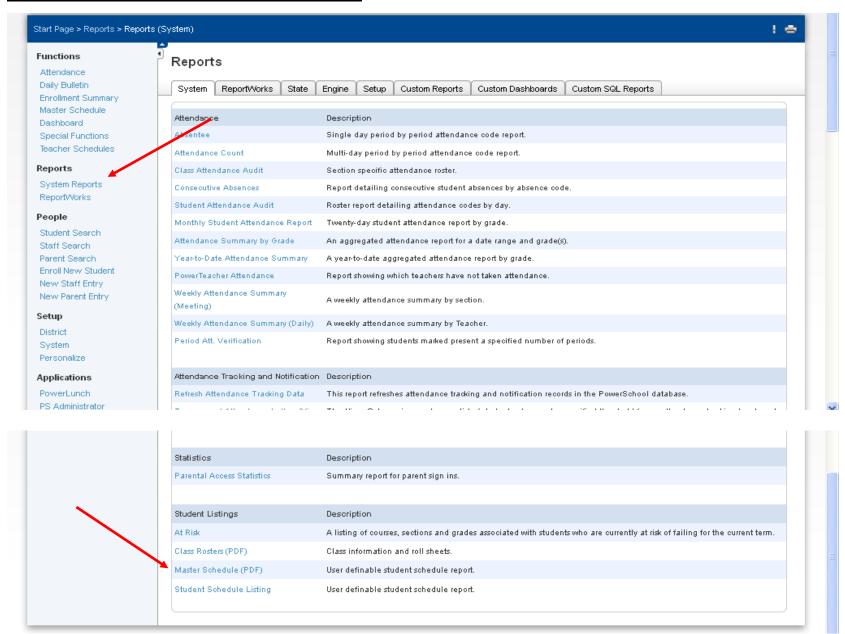
Error The Constraint file contains an invalid section. The constraint type is StudentPref, the course number is XXXX, the section number is 9. This constraint was ignored.

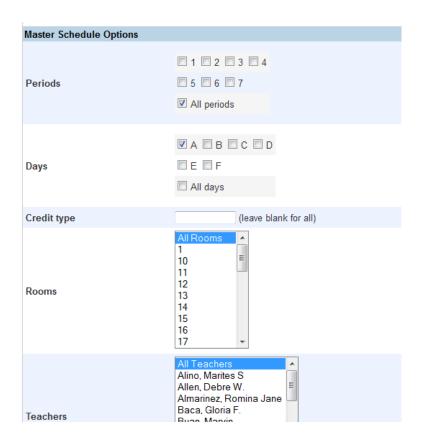
The course is not marked as **Schedule This Course** on the **Course Information** page or the section number defined in the Student Preference constraint is incorrect.

Error Invalid Student Preference constraint: The student is not requesting this course. The student is Firefly, Rufus T. and the course is 1325.

A Student Preference constraint has been created for a student who is not currently marked as **Schedule This Student** on the **Scheduling Setup** page. Navigate to PowerScheduler > Students, select the student named in the error message, select the **Schedule This Student** checkbox on the student's Scheduling Setup page, and click Submit.

RUNNING THE MASTER SCHEDULE REPORT:





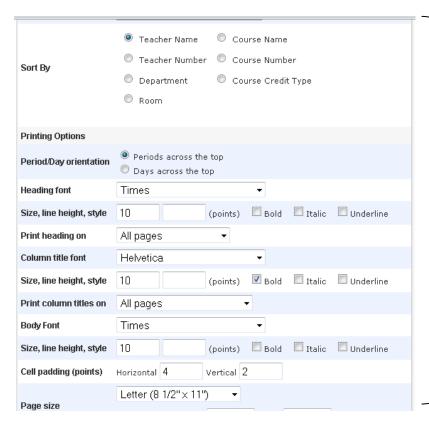
Choose:

Periods

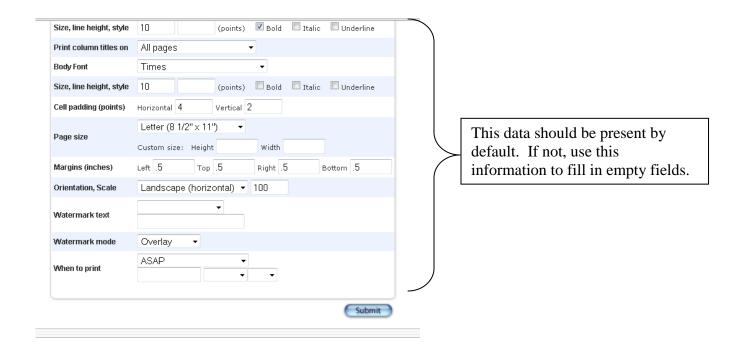
A Day only – not all

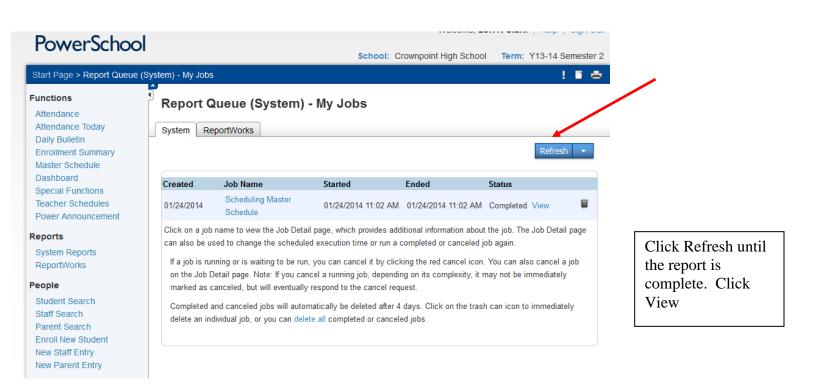
All Rooms

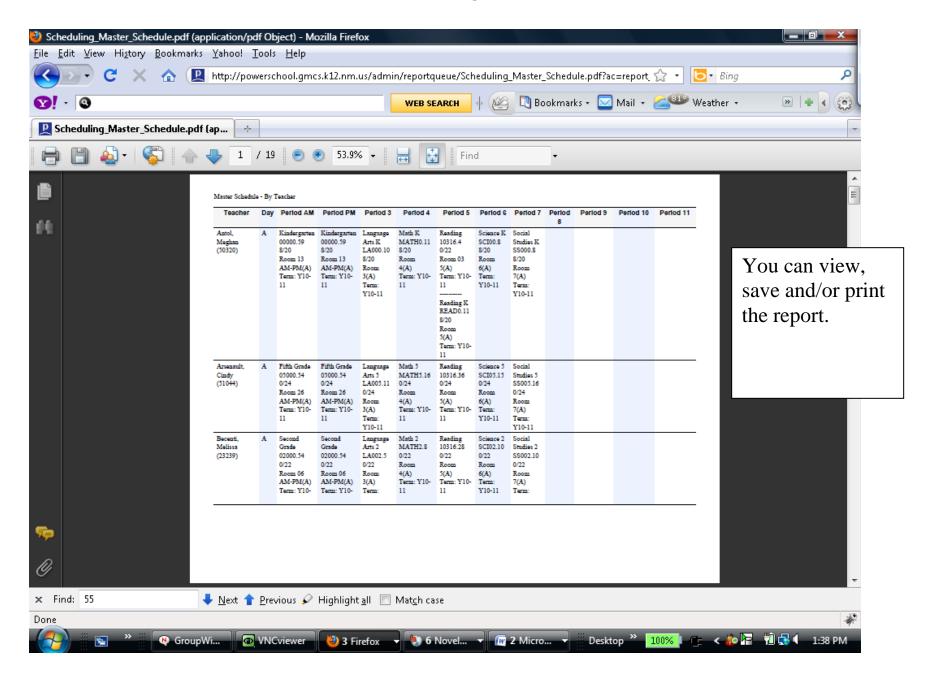
All Teachers (or if you only want to see certain teachers, use CTRL key while clicking on teachers to select group)



This data should be present by default. If not, use this information to fill in empty fields.







Email Lori Clark when you are ready to have your schedule committed — the deadline is June 15, 2016.



Items in the next section pertain to live side scheduling.

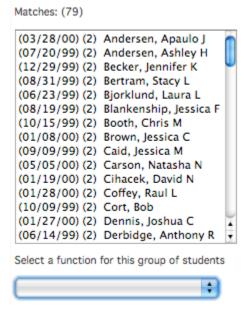
If your schedule has been committed, DO NOT go back into the scheduler. Any changes made in the scheduler after it has been committed will NOT show up on the live side.

Active Scheduling

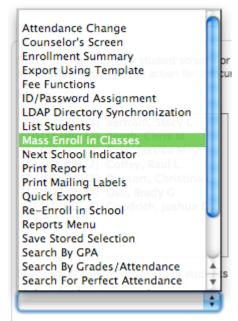


Use the <u>Mass Enroll</u> group function to enroll a group of students into the same course and section at the same time.

1. Select a group of students on the Start Page.

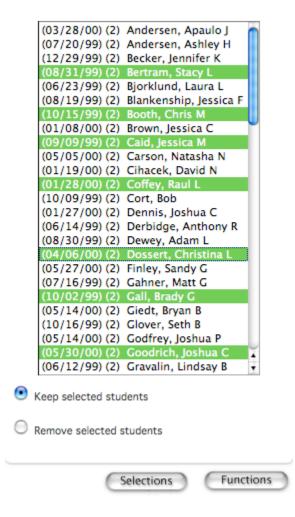


2. From the functions drop-down menu, choose either **Mass Enroll** or **Select Students by Hand**. If Mass Enroll is select, skip to step 5.



3. If using **Select Students by Hand**, choose either a group of students using the "Shift" key, or individual students using the "Command" key.

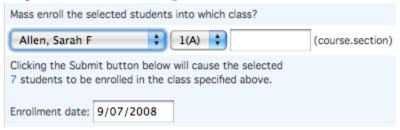
Hold down the COMMAND key to make multiple selections



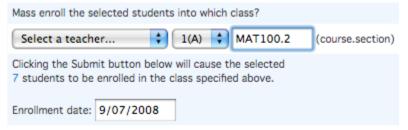
4. Click on **Functions** and select **Mass Enroll** from the functions menu.



- 5. Enroll the students in a section by either:
 - o Choosing a **Teacher** and an **Expression**.



o Entering the **course.section**. For example, if the course number is 12345 and the section number is 1, enter "12345.1" in the text field.



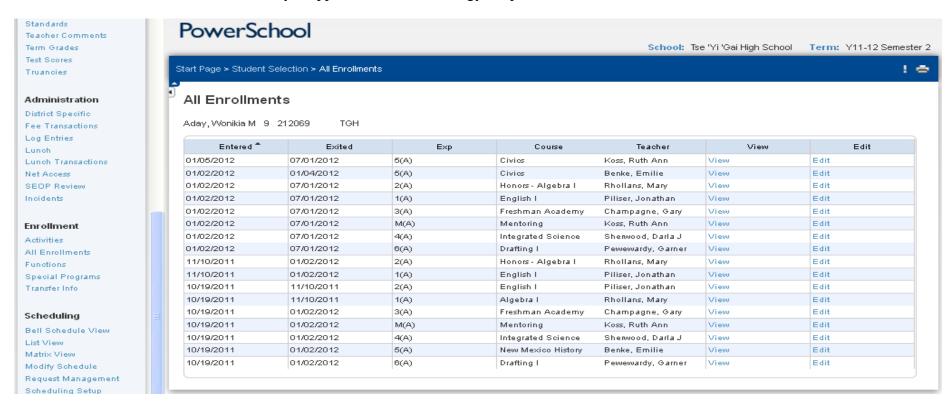
- 6. Enter the enrollment date in the **Enrollment Date** field. This is usually the first day of class. For example, if you are enrolling students into a Semester 2 course, the enrollment date will be the first day of the Semester 2 term.
- 7. Click Submit to save your changes.

The <u>All Enrollments</u> page, shows all previous and current sections that the student has been enrolled in. On this page you can view:

- 1. Entered: the date the student entered into the class
- 2. Exited: the date the student dropped the class
- 3. Exp: the period the class took place
- 4. Course: the name of the course
- 5. Teacher: the name of the teacher for the class
- 6. View: the individual assignments and grades entered for the class



- 7. Edit: editable fields for the Entered and Exit dates. **USE WITH CAUTION**
 - a. If you mistakenly enroll a student in a new class today, but they should have started the class yesterday, then you can update the Entered filed with the correct date.
 - b. The Entered and Exit dates should **NEVER** be altered to "<u>Reinstate</u>" a section that was mistakenly dropped. Changing the dates does **NOT** reinstate the section; it creates Overlapping Enrollments that cause various reports to not work properly.
 - i. If a class is mistakenly dropped, call the Technology Help Desk at extension 12250 for assistance.



After enrolling students into a section, **VERIFY THE ENROLLMENT** by navigating to the class roster.

- 1. Navigate to Start Page > School > Sections and choose the appropriate course.
- 2. Click on the number under the **Size** heading for the appropriate section.
- 3. Review the list of students.



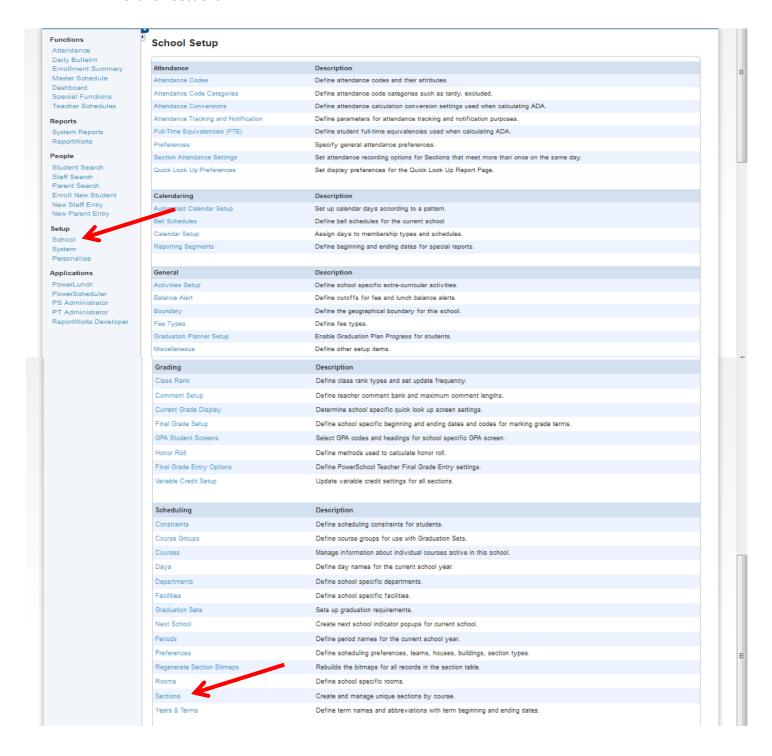
- 4. To view a student's schedule, either click on a student's name from the Class Roster, or select a student on the Start Page.
- 5. Choose the **Modify Schedule** student screen.
- 6. Review and modify the student schedule.

Enrollments										
Lock	Exp	Trm	Crs-Sec	Course Name	Teacher	Room	Enroll	Leave	Drop	
•	7(A)	08-09	EL1000-Blain	General Music	Kim, Sung Lee L	Music Room	6/1/2008	5/31/2009		
11 2	2(A)	08-09	EL101-Blain	1st Grade English 51	Blain, Barbara	14	6/1/2008	5/31/2009		
11 0	3(A)	08-09	EL102-Blain	1st Grade Math	Blain, Barbara	14	6/1/2008	5/31/2009		
•••1	4(A)	08-09	EL103-Blain	1st Grade Social Studies	Blain, Barbara	14	6/1/2008	5/31/2009		
•••	5(A)	08-09	EL104-Blain	1st Grade Science	Blain, Barbara	14	6/1/2008	5/31/2009		
•••1	6(A)	08-09	EL2000-Blain	Art	Gonzales, Estella	Art Room	6/1/2008	5/31/2009		
11 0	8(A)	08-09	EL3000-Blain	Physical Education	Riley, Kourtney W	Gym	6/1/2008	5/31/2009		
1	1(A)	08-09	HR-Blain	Homeroom	Blain, Barbara	14	6/1/2008	5/31/2009		

CREATING NEW SECTION (on Live Side of PowerSchool & in PowerScheduler):

Live Side:

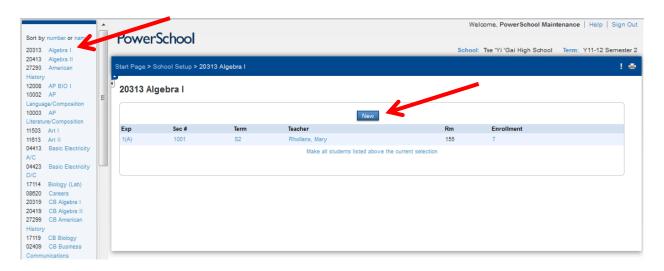
- 1. Click on School
- 2. Click on Sections

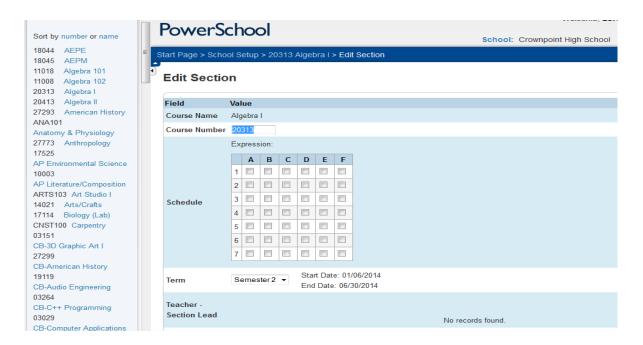


3. Click on Course Name you want to add a new section for.

a. If course is not listed, it will need to be added to your course catalog.

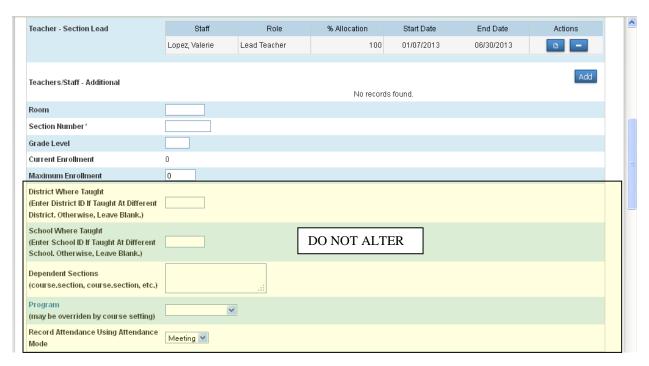
4. Click on New



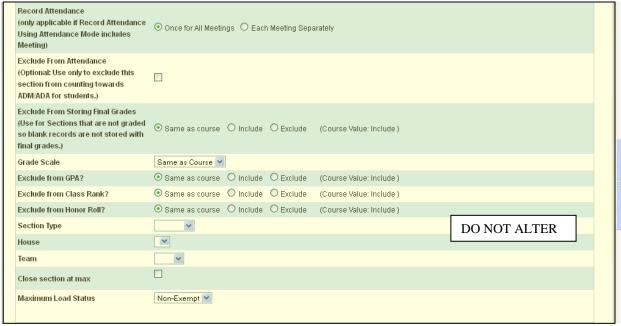


- 5. Choose Period
 - a. Click Days A, B, C, D and E for that period
- 6. Choose Term
 - a. High School and Middle School sections will be semester only



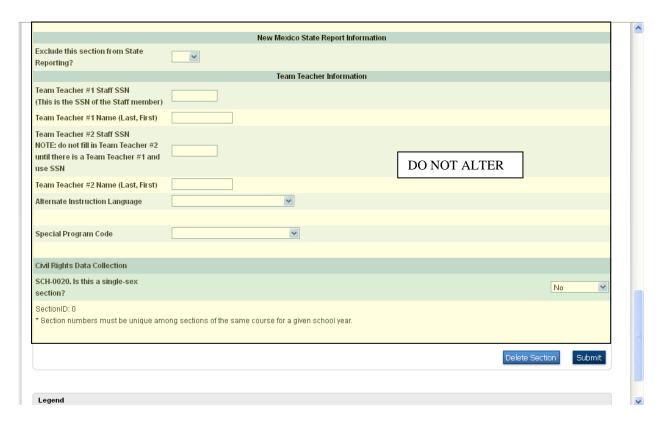


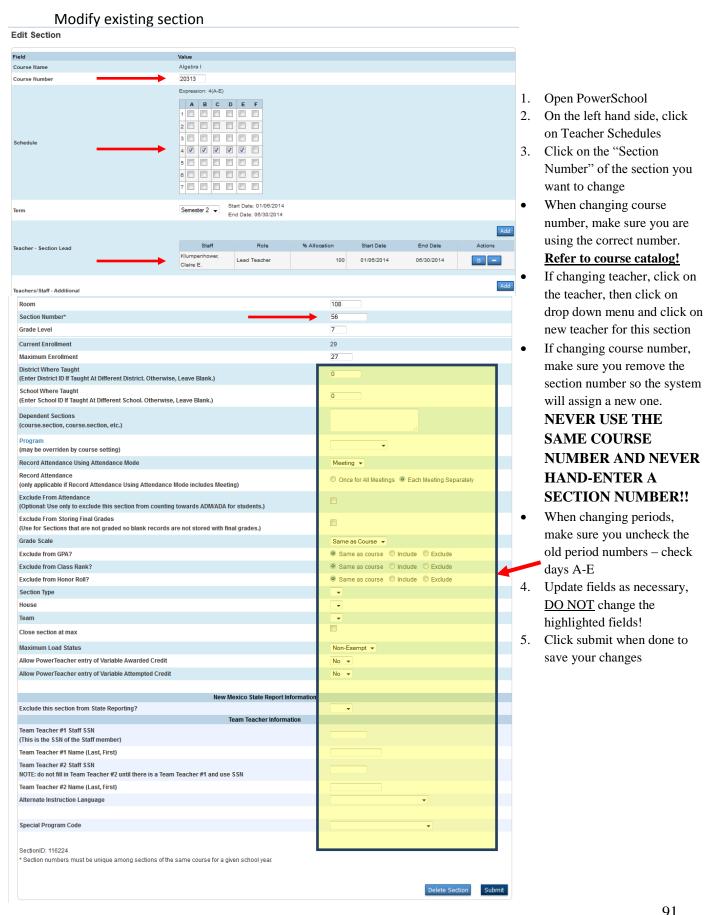
- 7. Choose Teacher: Click Add, using drop down menu, select teacher
- 8. Add Room Number
- 9. **DO NOT add Section Number**. System will automatically generate this number.
- 10. Grade Level is optional, however, if the class is primarily for a specific grade level, then add that grade level in this field.
- 11. Add Maximum Enrollment. The total number of students that can be in this class this period.
- 12. District Where Taught and School Where Taught should be left blank. Highlighted in yellow.
- 13. Dependent sections are only being used at Elementary schools. Highlighted in yellow.
- 14. Program is updated by the Student Information Supervisor. DO NOT ALTER!! Highlighted in yellow.
- 15. The rest of the page should not be altered; they are already set to the defaults. *Highlighted in yellow*.



Live side – creating new section continued:

16. Anything under New Mexico State Report Information should not be altered. This information is added by the Student Information Staff. *Highlighted in yellow*.





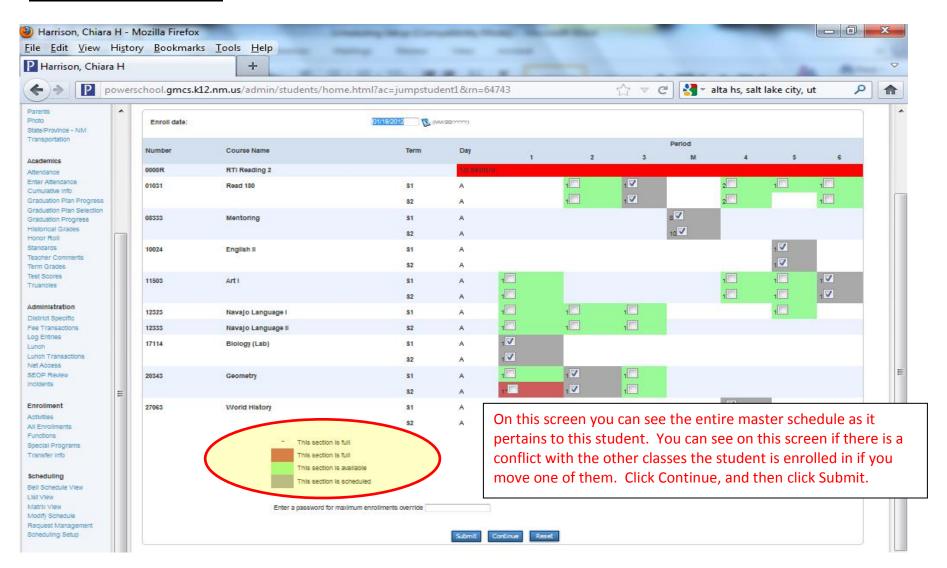
YOU CANNOT DELETE SECTIONS ON THE LIVE SIDE!

If you require a section to be deleted then you need to call the STARS team requesting that the section be deleted. It is helpful at the time of request, if you include the course number, section number and teacher name.



WALK-IN SCHEDULING: Period 1 -Academics Attendance Find Enroll Enter Attendance Cumulative Info Graduation Plan Progress Enrollments Graduation Plan Selection Graduation Progress Lock Exp Trm Crs-Sec Course Name Note Teacher Room Enroll Leave Drop Historical Grades 1(A) S2 17114-1106 Biology (Lab) Sherwood, Darla J 148 01/02/2012 07/01/2012 Honor Roll Standards 20343-1002 156 01/02/2012 07/01/2012 2(A) S2 Geometry Ortiz, Sylvia C Teacher Comments Term Grades S2 01031-1152 Read 180 Koss, Ruth Ann 114 01/02/2012 07/01/2012 Test Scores S2 08333-1012 Ortiz. SvIvia C 156 01/02/2012 07/01/2012 Mentorina Truancies Drop Selected Automated Schedule Manually Schedule Student Toggle Locks Drop All Administration District Specific Course Requests Fee Transactions Log Entries Note Alternate 1 Number Course Name Alt Code Alt Priority Section Type Lunch 0000R RTI Reading 2 0 Lunch Transactions Uses course requests 08333 Mentoring 0 Net Access and the scheduling See next SEOP Review 08333 Mentoring 0 engine to automatically Incidents page for English II 0 10024 schedule student. instructions! Enrollment Must have Schedule 10024 English II 0 Activities Engine downloaded to 12323 Navajo Language I 0 All Enrollments computer (see Functions 0 12333 Navajo Language II Special Programs download Schedule 0 17114 Biology (Lab) Transfer Info Engine) and must have 17114 Biology (Lab) 0 course requests Scheduling 0 20343 Geometry entered. See Request Bell Schedule View 0 List View 20343 Geometry Management. Matrix View 27063 World History 0 Modify Schedule 27063 World History 0 Find this page here areon Education, Inc., or its affiliate(s). All rights reserved.

Manually Schedule Student:



Other Scheduling option:

To Delete class: Click the box under the Drop column, then click on Drop Selected to drop classes.

<u>To Add class:</u> Type in the course number and select a period in the drop down menu. Once the class list appears click on the blue link for the class you want to add.

