WSIPC Guide to Future Scheduling: Part Two - Managing Student Requests

Contents

About This Guide

This Guide explains the functions necessary for collecting, recording, processing, and managing the information needed to generate class and individual student schedules for the next academic year or the current academic year.

The Future Year Scheduling process is divided into five parts that represent the five distinct areas in the scheduling process and one miscellaneous part that includes various reports and utilities. Within each of the six parts, the Guide outlines specific steps to complete that part.

Part One	Preparing to Schedule
Part Two	Managing Student Requests
Part Three	Building the Schedule Master
Part Four	Scheduling Students
Part Five	Concluding the Scheduling Process
Part Six	Miscellaneous Scheduling and Maintenance

This Guide explains the details of Part Two: Managing Student Requests. It shows you how to enter Course Requests for students.

This Guide helps anyone who coordinates and builds a Schedule Master to schedule students for next year's classes. This typically includes registrars and administrators, but might also include teachers, counselors, and anyone else involved in the future year scheduling process.

Appendixes common to all parts of Future Scheduling are located at the end of each Guide.

What You Should Know Before You Start

You'll find that the Guide is much more helpful if you understand your Entity's scheduling practices such as how requests are gathered, whether the Schedule Master will be changed from last year, and what method will be used to create student schedules. Additionally, many scheduling terms and many features in the Future Schedule module will make more sense if you have read the *WSIPC Guide to Current Scheduling*.

Be Sure You're Signed In

This Guide is intended to be read while you are working in Future Scheduling, so be sure you are signed in. Many of the procedures and concepts discussed in the Guide are best understood if you practice as you read.

How to Use This Guide

This section shows you how to follow navigation paths in a Guide, and how to navigate around the Guide using various features. This section also describes how and when screen shots are used in the Guide.

Navigation Paths

The procedures in this Guide begin with navigation menu paths. Select the Display Navigation Menu Paths check box in User Preferences to ensure that you can follow these paths. The option is not available in User Preferences if it is already enabled for the entire district. To learn more about setting User Preferences, see the *WSIPC Guide to Skyward's School Management System*.

Getting Around

If you're using this Guide electronically, you can click any text in blue font to move to the section of the Guide that the text refers to. Because the Guides are published in PDF format, you can also use the PDF navigation pane to quickly move from one section to another. If the pane is hidden, click the Bookmark button in the menu bar on the left side of the screen.

Screen Shots

You'll find screen shots throughout the guide to help you learn how to use the software. The data entered in the screen shots in this Guide is an example of the data you might enter. These screen shots are updated with each edition to make sure what you see on your screen matches what you see in the Guide. To prevent the Guide from becoming a lengthy picture book, WSIPC Guides use screen shots only to help illustrate a key idea or when options on a screen are described. This allows WSIPC Guides to be effective *and* concise.

What's in a WSIPC Guide

WSIPC Guides are designed to provide readers with everything they need to know to safely and effectively use Skyward's software. WSIPC strives to make Guides that address the diverse needs of these audiences. Therefore, this Guide doesn't contain information customized for specific audiences, districts, or schools.

If you need to create educational materials that address the specific needs of your Service Center or district, consider using this Guide as a starting point for developing your own customized materials.

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What's New in This Edition

This section highlights the significant changes to the Guide since the last edition such as content about new features, important notes and cautions, and sections of the Guide that have been expanded or moved.

Description of Change	Page # in this Guide	Location in Other Future Scheduling Guides
Updated the Guide to reflect WSIPC's November 2015 software release version 05.15.10.00.03.	N/A	N/A
Updated all dates to reflect the 2016-2017 school year.	N/A	N/A
Added the "Restricting Access to Course Availability Lists by Grad Year" section.	13	N/A

The Basics of Future Scheduling

The Future Scheduling module helps you collect, record, process, and manage the information you need to generate schedules for the next academic year, future school years, or future terms within the current school year. Scheduling is a complex process that must accommodate many variables, including the availability of Course Sections, teacher availability, students' Course Requests, Course prerequisites, and the school's academic requirements.

Using the Traditional Method

This Guide approaches the scheduling process with a "traditional" method of scheduling students, in which the software schedules students into Sections. Using this method, you create a Course Master of available Courses, gather students' Course Requests, create Sections for the Courses (including assigning a teacher, room and period), and use the software to schedule students. This method usually requires several trial runs before the final scheduling run.

Because this process involves many steps, "Appendix A – Future Scheduling Checklist" (page 51) contains a checklist to help you track your progress. In "Appendix B – Scheduling Process Diagram" (page 56), a scheduling process diagram shows a typical scheduling process that uses the traditional scheduling method to produce student schedules. The diagram incorporates the six parts of scheduling that are covered in the individual Future Scheduling Guides.

Dealing with Conflicts

While the Future Scheduling module helps you develop a Schedule Master and generates student schedules, the number of variables makes conflicts inevitable (Sections fill up and Course demand often does not match expectations). The Future Scheduling process includes several checkpoints to help you spot and correct problems early.

Working in the Correct Entity

Do all Future Scheduling work in the Entity you're scheduling for unless otherwise noted in the Guide. Be sure you are not scheduling in Entity 000. If you try to schedule in Entity 000, some features are not available.

Selecting the School Year

If you select the **Allow Current Year Scheduling** or **Schedule Multiple Times Per Year** check box in **Scheduling Options** (Student Management\Office\CS Setup\ CF\SE), you *must* select the current school year, term or semester, or future year in the **Future Scheduling** area.

There are many ways to select the school year. The way you use it depends on your scheduling method. In the **Future Scheduling Time Period Selection** screen (Student Management\Office\FS), do one of the following:

- If you are scheduling for the entire current school year, select the entire current school year.

- If you are scheduling several times per year, select a Term or Semester of the correct school year.

- If you are scheduling for a future school year, select the correct future school year.

Once you make your selection and are working within the **Future Scheduling** area, the scheduling selection appears as the Term/Semester or Year you are scheduling.

⚠️	**Caution**	This selection is specific to each user, so when the **Allow Current Year Scheduling** check box or the **Schedule Multiple Times Per Year** check box is selected, you must proceed with caution to ensure that you make the correct selection in this area *before proceeding with any scheduling task.*

Concepts You Should Know

Before you learn how to use the Future Scheduling module, familiarize yourself with the following pairs of terms used throughout this Guide. "Appendix C – Glossary of Scheduling Terms" (page 57) contains a glossary of terms that help in your understanding of Future Scheduling.

Course Master vs. Schedule Master

A *Course Master* contains information about an Entity's Courses, Sections and Meets. (A Meet defines such things as the day of the week the section is taught.) The *Schedule Master* (also called the Master Schedule) defines the Entity's plan for Courses it will offer.

Section vs. Class

The words *Section* and *Class* appear throughout the Future Scheduling module. Though they technically mean the same thing, there are subtle differences in the way the terms are used. Most areas of Future Scheduling use the word *Class* when a process or area involves a student, and the word *Section* when a process or area involves a Course or the Course Master. For example, a student enrolls in a class, but a Course contains Sections. For the sake of simplicity, this Guide uses the word *Section* in both cases.

Request vs. Scheduled

Be aware of the difference between *request* and *scheduled*. These words are not synonyms. For example, a student *requests* a Course but is *scheduled* into a Section. The difference is that a request reflects a desire to enroll in a Section of a Course–a potential enrollment–but a scheduled student is actually enrolled in the Section.

Step 1: Create an Availability List

An Availability List contains Courses generated from the Course Master, by grade level. Students use the list to designate their Course requests. If Family/Student Access is used for request entry, an Availability List must still be generated so that the Courses available for request are listed online. However, a paper copy does not have to be printed and distributed. The Courses in the Availability List control which Courses are available through Student and Family Access.

Once Course requests have been made on the Availability List, requests are entered manually, or students/guardians can use them as a guide to enter requests directly into Family/Student Access.

Creating an Availability List is a three-step process:

- Add a Course Wish Group
- Create a Course Availability List
- View or Print a Course Availability List

Each of these steps is explained below.

Add a Course Wish Group

Before you can create an Availability List, you must create a code that identifies a group of Courses that will be generated into an Availability List. It is generally only necessary to create one Course Wish Group because an Availability List can be built by Grade Level/Grad Yr. Therefore, you don't need to create a Course Wish Group for each separate Grade Level/Grad Yr.

To add a Course Wish Group:

1. Go to Student Management\Office\FS\RP Setup\CO\CW.

2. Click Add.

3. In the Wish Group Id box, enter a Wish Group Code of up to three alpha-numeric characters.

4. Enter descriptions in the Short and Long Description boxes.

5. If the students or guardians will enter requests in Family Access, select the Use This Course Availability List in Family/Student Access check box.

6. Click Save.

Create a Course Availability List

This process creates a list of available Courses for each Graduation Year for the selected Course Wish Group. When a Course Availability List is created, certain information for all active Courses in the Course Master is stored. This information includes the Grade Ranges of the Course, whether the Course is required or is an elective, the Course Type, the Category and Schedule Type.

This information must be accurate in the Course Master before you generate the Course Availability List. For example, if a Grade Range says the Course is offered to grades 09-12 but it really should be available for 12th grade students only, the Course prints on the Course Availability List for grades 9-12 instead of for 12th grade students only.

You can append or re-create Course Availability Lists. When you do this, the additional information is also stored.

Note	A list is usually created for all grade levels in the building (such as 9-12). From that Availability List, a separate list can be printed for each grade level. You do *not* need to create a separate list for each grade level.

When you create a Course Availability List, a unique request number is assigned to each Course. This number can help with the entry of student requests but is not required. If a Course Availability List is appended and new Courses are added, the next available request number is assigned. When the Course Availability List is printed, the Course appears in the proper position according to the sort selection not necessarily according to the request number assigned to the Course. In addition, the request number assigned to the Course appears.

When an *existing* Course Availability List is appended, the process validates Courses on the current Course Availability List and updates any Courses that have been inactivated or put in a Dropped status in the Course Master.

Courses are flagged as "Dropped – CWL" (where CWL = Course Wish List) on the Course Availability List if any of the following criteria is met (and has occurred *after* the list was first created):

- The Status of the Course has changed to Inactive

- The Schedule Type of the Course has changed to Dropped

- The Grade Ranges of the Course have changed and are no longer available to the Grad Year of the selected Course Availability List

Note	You can show a Course on the Course Availability List as Dropped – CWL without changing the Schedule Type on the Course Master to Dropped Course and appending the Availability List. Do the following: 1. After creating the Course Availability List using the procedure below, edit the Course Wish Group (Student Management\Office\FS\RP Setup\CO\CW) and click the arrow next to the Course Wish Group. 2. Then click the arrow next to the group of Courses for the Grad Year and click the Drop hyperlink. You can now reprint the Course Availability List and "Dropped – CWL" prints next to the selected Course(s) for the selected Grad Year(s).
Note	If you want separate lists to appear in Family Access that specify the date and time each grade level, and/or alpha key range can access online scheduling to enter requests, see "Use Family Access to Generate Student Requests" (page 33).

To create a Course Availability List:

1. Go to Student Management\Office\FS\RP Setup\UT\CA.

2. Verify that the correct School Year is selected. The next school year should default as the selected value.

3. Select a Course Wish Group in the Course Wish Group box.

4. In the Process Type area, do one of the following:

- Select Create to create a new Course Availability List.

- Select Append to modify an existing list.

Figure 1 and Figure 2 (page 12) provide examples of reports using each of these options.

⚠️ **Caution**	Do not re-create an existing Course Availability List if the list is already in use. If the Course Availability List has been created, printed, and distributed or made available in Family Access, select Append if changes are made to the list.
	A change includes a Course being added, dropped, or deleted in the Course Master.

5. Select the Grade/Grad Yr Low and High range for which the Course Availability List will be processed.

Note	A "snapshot" of the Course Master is taken of this range of data and a separate Availability List is created for each Grade/Grad Yr in the range. When the list is printed, it can be printed with different data and sorted differently by Grade/Grad Yr.

6. In the Course Selection box, select Electives and Required or Electives Only. This value is based on the selection made for each Course in the Course Master in the Elective/Required box.

Best Practice	Make the "snapshot" selection Electives and Required, especially if the Grade/Grad Yr range includes several years. If Electives and Required Courses is selected, later when the list is printed you can chose to print only Electives for one Grade/Grad Yr while the remaining Grade/Grad Yr lists can include both Electives and Required Courses. However, if the "snapshot" only includes Electives, those are the only Courses that can be printed for all Grade/Grad Yr selections.

7. In the Course Scheduling Types box, select which types you want included: Normal Schedule Types, Manually Schedule Types, and/or Special Education Types.

8. Make selections in the **Course Types, Course Groups, Lunches,** and **Study Halls** boxes.

Note	The Lunches and Study Hall boxes are options in the Category field on the Course Master on each Course. If a Course has a Category of Lunch or Study Hall selected and the corresponding option on this screen is selected, the Course is included on the Availability List. Courses with a Category of Transfer or Waiver are excluded from the Availability List.

9. (Optional) Select the **Delete Lists not in Grad Year Range** check box. If this option is selected, the utility creates the new Course Availability List for each Graduation Year specified in the ranges, and deletes any Course Availability List that is not within the Graduation Year/Grade ranges.

Example	If the Course Availability List was created the first time for the Graduation Year range 2016 – 2020, four separate lists were created. If the list was created again, but for the Graduation Year/Grad range 2016-2019, then the list for Graduation Year 2020 is deleted.

Note	You can select this option only if the Process Type is Create.
	If you are looking for a way to control the dates/times when specific grade levels have access to entering requests, you can create a list for one grade level (such as 12). That grade level then has the ability to enter requests in Family Access. When that grade level's time is up, delete the list and add another for the next grade level (such as 11). If you do this, be sure when you create the next list to select the Delete Lists not in Grad Year Range check box.

10. (Optional) Select **Include Course Alternates.** This is an option in the **Category** field on the Course Master on each Course. If a Course has a Category of **Alternative** selected and this option, **Include Course Alternates,** is selected, the Course is included on the Availability List.

11. Click Sort and make selections. Course Key is selected by default and cannot be removed. Selections in this area determine the order in which the Courses are displayed on the availability list.

12. Click Save.

13. Click Run.

The Course Availability List is created.

```
1calp02.p 01-2                              WSIPC High School                10/19/15              Page:1
05.15.10.00.00                          Create Course Availability List                              2:45 PM



Process Summary
            School Year: 2017
      Course Wish Group: ALL
          Process Type: create

Grad Year  Number Processed  Number Created  Number Updated
   2017            97              97              0
   2018            93              93              0
   2019            66              66              0

Deleted Course Availability Lists


      ********************* End of report **********************
```

Figure 1 - Create Course Availability List Report with a Process Type of Create

```
1calp02.p 01-2                              WSIPC High School                11/25/15              Page:1
05.15.10.00.00                          Create Course Availability List                              1:00 PM



Process Summary
            School Year: 2017
      Course Wish Group: ALL
          Process Type: append

Grad Year  Number Processed  Number Created  Number Updated
   2017             1              0              1
   2018             1              0              1
   2019             1              0              1
   2020             1              0              1

Deleted Course Availability Lists


      ********************* End of report **********************
```

Figure 2 - Create Course Availability List Report with a Process Type of Append

Restrict Access to Course Availability Lists by Grad Year

You can set up access to Availability Lists by Grad Year or Grade Level to allow schools to have control over when each grade level has access to enter requests.

To restrict access to Course Availability Lists by Grad Year:

1. Go to Student Management\Families\FM Setup\CF\EC.

2. Click the arrow next to Course Requests.

3. Select the desired Year, and click Edit next to the Application Name Update Selected.

4. Under Student Options, click Use Course Request Time Periods to determine if window is open.

5. Click Time Periods.

6. Click Add on the Course Request Time Periods Setup screen.

7. In the Grad Yr/Grade box, enter a graduation year or grade level.

8. In the Student Key boxes, enter a Start and Stop range to limit the range of students if desired, or leave with the Student Key defaults.

9. In the Date boxes, enter a start and end date.

10. In the Time boxes, enter a start and end time.

11. Click Save.

12. Repeat steps 6 through 11 for each grade level allowed to use Family Access Course Requests.

13. Click Back and then click Save to navigate to the Entity Configuration screen.

14. If you allow students or guardians to enter Alternate Requests, select the desired year, and click Edit next to the Application Name Alternate. Repeat steps 4 through 11.

15. Click Back and then click Save to exit the Alternate Entity Configuration screen.

View or Print a Course Availability List

After you create or append a Course Availability List, you can view it or print and distribute it as needed for students in one graduation year or a range of graduation years. Typically, students use the lists to designate the Courses they want to take in the upcoming year. Staff members then manually enter their Course requests. Students and guardians can also use the list to prepare to enter Course requests in Family/Student Access.

When printing a Course Availability List, there are three options for defining the output:

▪ **Print using Student Ranges:** This option prints an availability list for a range of students that is customized for each student. The header of the list includes the student's name, address, phone number, grade level, date of birth, gender, homeroom, advisor, graduation year, calendar and school. It is easier to enter requests when you know the student's identity and other information.

▪ **Print using Student Selection:** This option allows you to print an availability list for specific students. This is also a customized list for each student, including the same header information as when printed by student ranges. This option is helpful when a student's availability list is lost or unusable and another copy is needed.

▪ **Print using Template:** This option prints an availability list with no header information. Students must write their name and other information onto their copy of the list. The template is helpful when you need a list for a specific graduation year and you aren't ready to print the list for specific students.

To view or print a Course Availability List:

1. Go to Student Management\Office\FS\RP\RE\PC.

2. Click **Add**.

3. Do one of the following:

   - Select a Course Availability List output type of **Print using Student Ranges**, **Print using Student Selection**.

     □ Click Ranges and make the appropriate range selection(s).

   - Select a Course Availability List output type of **Print using Template**.

     □ Click Students and make the appropriate student selection(s).

4. Verify that the correct School Year is selected. This should default to the school year being scheduled.

5. Confirm the Control Sets values. If only Courses with specific Control Set values should print on the Availability List, for example Semester 1 only, click Control Sets, make selections, and click Save.

6. Select the **Grade/Grad Yr Low** and **High** range that the availability list should be printed for.

Note	You can print an Availability List for a span of Grad Years if the Availability List will contain the same kinds of information (such as Report Format, Course Selection, and Report Options).

7. Click the arrow to the right of the **Group to Print For** box. This is the Course Wish Group you created previously. Only groups for which you have generated a Course Availability List appear for selection.

8. Click the **Report Format** arrow and select **Entire List** or **Updates Only**. If **Updates Only** is selected, only Courses added since the list was appended are included on the list. This option is not available when selecting **Print using Template**.

9. Click the **Course Selection** arrow and select **Electives Only** or **Electives and Required**. This option is not available when selecting **Print using Template**.

Note	Both options are available when printing the list, even if you chose the **Electives Only** option when you created the Course Availability List. A list that was generated with Electives Only will not include Required Courses when you print it even if you select Electives and Required as your Course Selection option. To include required Courses, on the printed Availability List you must have selected the **Elective and Required** option when you initially generated the Course Availability List. *Example:* 9th graders can select only Elective Courses, but 10th through 12th graders can select both Elective and Required Courses. The list can be printed once for 9th graders with the Course Selection option of Electives only. The list for 9th graders only prints Courses marked as Electives. The list can be printed again for 10th through 12th graders with the **Course Selection** option of **Electives and Required** selected. The list printed for 10th, 11th and 12th graders prints all Courses–those marked as Elective and Required. This eliminates the need to create two separate availability lists if they are being printed and distributed to students. One list can be created and then printed with the desired options (differently for each graduation year).

10. The **Sort Sequence** box shows the default sort of Course Key and other selected Sort options, used when the list was created.

11. Use the arrow for the **Number of Signature Lines** to select how many blank signature lines to print on the list, from 0 to 2. If you select 1 or 2, that number of lines prints at the bottom of each page of the list with the word "signature" underneath a blank line for someone to sign, such as a parent or guardian.

12. If you selected Signature Lines in step 11, enter descriptions that will appear before the blank line by doing one of the following:

- If you selected one Signature Line in the previous step, enter a description in Line 1.

- If you selected two Signature Lines in the previous step, enter a description in Line 1 and Line 2, such as "Guardian" or "Counselor."

13. Click Sort By, make selections and click Save.

Note	The Sort By option is not available if Print using Template is selected. Sort By selections determine the order in which the list prints for the selected student(s).
	If you don't make a Sort By selection, the lists print in alphabetical order by student last name and first name.

14. Click Save and Print.

The Course Availability List is generated through the Print Queue. The list includes the Course request number assigned when the list was created. This information appears in the NBR column. In addition, the list displays the Course's credit value, the Course description, the Terms during which the Course is offered, and whether the Course is a Required (R) or Elective (E).

Up to three columns of Course Records can appear on one page of the Course Availability List. If more room is needed, additional pages are generated. If signature lines were selected, they appear at the bottom of each page of the list.

Figure 3 shows a Course Availability List printed for a range of students, including Elective and Required Courses and two signature lines.

Figure 3 - Course Availability List printed using Student Ranges and including two signature lines

Step 2: Enter Requests

The next step in managing student requests is entering requests for Courses that students want to take in the school year being scheduled. You must enter requests for students before you can run the Auto Scheduler to produce student schedules.

When entering requests, you must know how many requests per student are allowed. To determine this, you need to know how many credits constitute a full schedule for the time period being scheduled (typically a full school year). If a full schedule is six credits, then *only* a maximum of six credits should be entered per student. If more requests are entered, for example to serve as alternate requests for Courses the student might not get scheduled into, it will cause unreliable data. For example, it will appear that more seats are needed than actually are required, and Course and student conflicts will be inflated.

Course requests that are intended to serve as alternate Course requests for a student are entered separately from regular requests. An alternate request for the student should *not* be entered as an extra regular request (in addition to the number of requests that would constitute a full schedule). There are various ways to work with alternate requests for a student once they have been entered. If you schedule alternate requests using the Auto Scheduler, they are not placed using the same scheduling run that places regular requests.

Add Student Course Requests

There are several methods you can use when entering requests for students. You can enter requests individually for one student at a time, or you can use utilities to enter one or more requests for a range of students. Additionally, a student or guardian can enter requests through Family Access, or a teacher can enter recommendations which you can later assign as student requests. When entering requests, either individually or using a utility to add them to groups of students, there are multiple methods of locating and selecting the request depending on the information you have available to you (such as Course description, Course Code, and Subject).

This section discusses the different methods used to enter requests.

Enter Requests Using the Quick Entry Screen

The Quick Entry screen (see Figure 4 on page 23) is the most efficient way to manually enter requests. You can select students from a range or select a specific student. You can apply Course filters to the available Courses for the student, to narrow the selection or find a specific Course. However, the Courses available for selection are all active Courses in the Course Master even if the grade ranges of the Course do not match that of the selected students.

When Courses are requested, their credit value is added to the student's Total Credits Requested value. This value should not exceed what is considered to be a full schedule (based on credits).

To enter requests using the Quick Entry screen:

1. Go to Student Management\Office\FS\RP\RQ.

2. Select the desired student. You can use the alpha-key lookup or click **Student** to search using Student Filters and Individual Student Lookup. To modify the list of students available for selection, click **Ranges** and specify a range of students and click **Save**.

Tip	You can use the forward and back arrows to navigate to the previous or next student according to the ranges defined.

3. In the Course Filters area, use the Course Key, Short Description and Long Description, Required/Elective, Subject and/or Grade boxes to narrow the list of Courses in the Available Courses list at the bottom of the screen. Course request selections for students are made from the Available Courses list and must appear in the list to be selected.

4. Click Search to apply the Course Filters. Click Clear to set the Course Filters back to the default values.

5. (Optional) Click Defaults next to the Available Courses list and make selections as desired. Click Save.

    The Display Class Control Set Selection Screen on Add option determines whether the Class Control Set screen appears. This screen allows you to select Any Available Normal Control Set, a specific Normal Control Set, or may allow you to select a Subset Control Set (specific terms of a Normal Control Set) if the Subset is configured to allow this selection. Lastly, if the Allow Multiple Term Requests option is enabled, you can select additional term options. See the Note in Step 6 below to learn more about the selections that are available.

    The Alert When Adding a Course the Student Has Already Passed option causes a message to appear when a Course is being requested for a student who passed the Course with this same Curriculum Master Course key in a previous school year.

Note	The options selected on the Default Settings screen for Quick Entry also affect request entry in Entry by Student (Student Management\Office\FS\RP\ES) when selecting Add By Course.

6. In the Available Courses list, select a Course and click Request.

Note	If a Course is selected and the grade ranges specified do not match the student's grade level (based on the year being scheduled), a message describes the mismatch between the Course and student's grade level. Click Request to add the Course or click Cancel.

    If the Class Control Set screen appears, select Any Available Normal Control Set to have the software determine the best control set at the time the request is scheduled, or select a specific Normal or Subset Control Set available to the class. If the multiple term options appear (Number of Terms, Term Options and Scheduler Terms), make desired selections. And click Save. To learn more about multiple-Term selections, see Table 1 (page 25).

Note	A Subset Control Set (specific terms of a Normal Control Set) only appears for selection on the Class Control Set screen if students are allowed to enroll in a subset of a Course Length Set (for example, if a student is allowed to enroll in Term 1 of a semester-long Course or allowed to enroll in Term 1-3 of a year-long Course). The ability to select a subset for a request is enabled by selecting the Allow Student to Take Subset option on one or more subsets of a Course Length Set (Student Management\Office\FS\BC Setup\CO\CL). If the Allow Multiple Term Requests option (Student Management\Office\FS Setup\CF\SE) in Scheduling Options is enabled, you can make additional term selections (Number of Terms, Term Option and Scheduling Terms) on the Class Control Set screen. These additional term selections will not appear for a year-long Course if the Allow Student to Take a Subset option has been enabled for any subset of the Year length Control Set. If the Allow Student to Take a Subset option is not enabled on any subset for a Course Length Set, and the Allow Multiple Term Requests option is also not enabled, you can only select a Normal Class Control Set or Any Available Normal Control Set.

The Course is added to the Requested Courses list.

Note	If a request has been made for multiple terms or terms have been excluded, the value in the Term column appears in pink. Click on the Term value (when you hover your mouse over the Term value, it appears as a hyperlink). The Include/Exclude Student Request for Terms for Course XXX screen appears indicating the specific Start and Stop Terms of the multiple term request or the excluded terms.

Note	To remove a requested Course, select the Course in the Requested Courses list and click Delete.

7. Repeat step 5 to enter additional requests for the same student.

Note	If a Course Code appears in the list of Courses in red text, the Course has already been requested. You cannot request a Course for a student more than once. If you try to request a Course in red text, a message says it has already been requested.

8. To print a list of the student's requested Courses, click **Print Requests.**

9. Repeat steps 2 through 6 to enter requests for other students.

10. To exit Quick Entry, do one of the following:

   ▪ Select an option from the row of tabs (such as **Students** or **Office**) at the top of your **Home** screen.

   ▪ Click the left arrow underneath the **Home** tab on your **Home** screen.

Figure 4 - Quick Entry screen with Requested Courses

Option	Description
Number of Terms	Determines the number of terms contained in the Course request (whether it be a Normal set or Subset) and the options that are available to select in the Scheduling Terms area of this screen. For example, a school is configured for 2 Semesters and 4 Terms, with Normal Class Control Sets of Semester 1 (Term 1-2) and Semester 2 (Term 3-4) and Subset Class Control Sets of Term 1, Term 2, Term 3 and Term 4. If you select 2 for the Number of Terms option, this allows you to select any Class Control Set (in the Scheduling Terms area) that contains 2 Terms. In this example, that would be Normal sets Semester 1 and Semester 2 or Any Available Normal Control Set. If you select 1 for the Number of Terms option, this allows you to select any Class Control Set that contains just 1 Term. In this example, that would be all four Subsets (Term 1, Term 2, Term 3 or Term 4).
Term Option	Indicates whether you want to include or exclude a Class Control Set for the selected request. The term(s) included or excluded are defined by the selection made in Scheduling Terms. You cannot select Exclude when the only Scheduling Terms options available are Subsets.

Option	Description
Scheduling Terms	Identifies the specific Terms of the request. When the request is scheduled, the software schedules it for these specific terms. In the example described in the Number of Terms row above, if you select 2 as the Number of Terms value, you can select any specific Class Control Set that is two terms in length (either of the Normal sets - Semester 1 or Semester 2). You can indicate that the software can select **any** available Normal set. Or, you can exclude one of the specific Normal sets (Semester 1 or Semester 2) so that when the request is scheduled, it is **not** scheduled for those specific terms. If you select 1 as the Number of Terms value, you can select any specific Class Control Set that is one term in length. In this example, that would be any of the Subsets that are enabled for student enrollment (Term 1, Term 2, Term 3 or Term 4). You can make one selection within each Normal set (which includes selecting the value of None). You cannot select to exclude any terms since the only term options are for Subsets.

Table 1 - Options on the Class Control Set screen when the Allow Multiple Terms Requests option is enabled

Using the Request Quick Entry Method to Enter Requests

While in the Quick Entry screen, you can use the Request Quick Entry method to expedite the entry of requests. Requests are entered by their Course Key. The Courses available for selection are all active Courses in the Course Master, even if the grade ranges of the Course do not match that of the selected student.

Using this entry method, requests cannot be entered for specific Class Control Sets (normal sets or subsets).

To use the Request Quick Entry method to enter requests:

1. Click Request Quick Entry.

2. Do one of the following:

   - Enter the Course Key of the request to be entered.
   - Click Course Key to choose from a list of available Courses.

⚠️	**Caution**	If the grade level of the student does not fall within the grade ranges of the selected Course, a message does not appear advising of the mismatch. The Course request is automatically added without advising that the grade level and grade ranges do not match.

3. Click Add Course, or press the Enter key on your keyboard to select the Course.

Note	To remove a requested Course, select the Course in the Requested Courses list and click Remove Item.

4. Click Save. The requests that you added appear in the Requested Courses list.

5. To exit Quick Entry, you must do one of the following:

   - Select an option from the row of tabs (such as Students or Office) at the top of your Home screen.

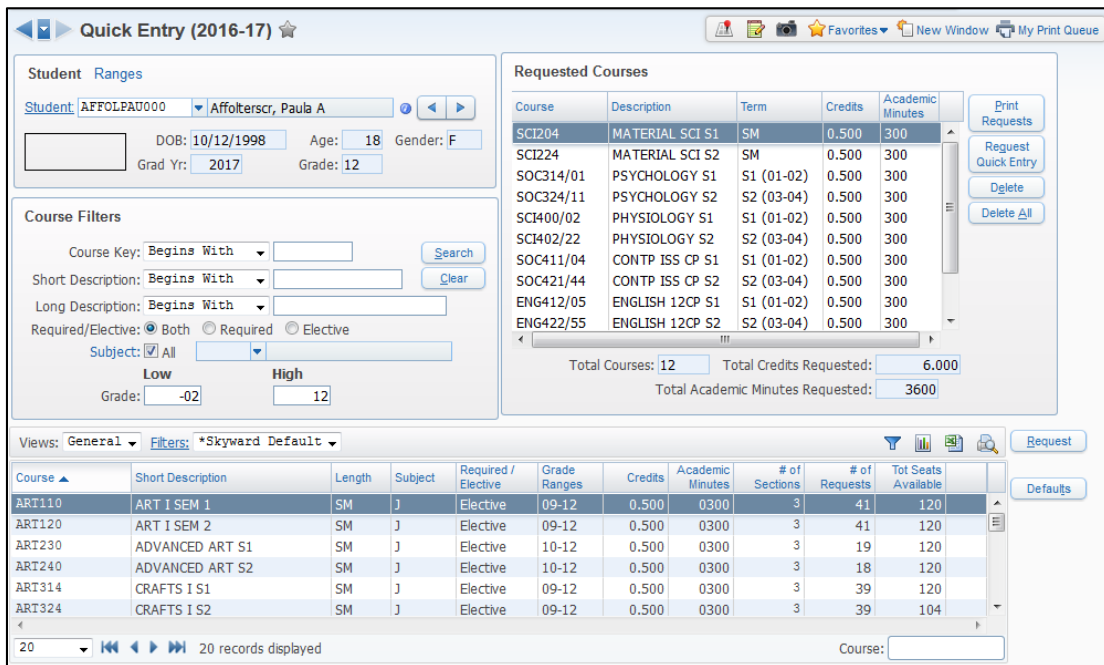   - Click the left arrow underneath the Home tab on your Home screen.

Enter Requests By Student

When you enter requests By Student, you can add requests using an Availability List or add requests by Course. A third option, Request Quick Entry, works exactly like the Request Quick Entry option on the Quick Entry screen. To learn more about Request Quick Entry, see "Using the Request Quick Entry Method to Enter Requests" (page 26).

Adding Requests with an Availability List

You can use this option to enter Course requests for students when an Availability List has been generated for student selection of requests. This method of request entry lets you quickly enter the student's requests from the generated list of available Courses that matches the student's graduation year. If desired, to speed up data entry, you can use the 10-key pad on your keyboard to type the number generated on the Course Availability List (NBR column).

To add requests with an Availability List:

1. Go to Student Management\Office\FS\RP\ES.

2. Select a student and click the arrow to the left of the student's last name.

3. Click the arrow next to Course Requests to view the current Course requests for the selected student.

Tip	Requests can be edited or deleted from this screen. In addition, the Total Credits Requested, Total Credits Scheduled and Total Academic Minutes values appear for the selected student.

4. Click the Add With Availability List link to add and/or drop requests within a specific Availability List.

Note	If a message appears saying a list does not exist for the selected student's graduation year, click OK. Since Availability Lists are generated for graduation years, a list must exist for the graduation year of the selected student before Courses can be selected. See "Step 1: Create an Availability List" (page 7).

5. Select the desired Course Wish Group, click the arrow next to Entity for the desired group and click the arrow next to Course Availability List, or click View All Courses. The list shows Courses that were selected when the Course Availability list was created and that match the student's graduation year.

Tip	If you select View All Courses, you can use the 10-key pad on your keyboard to speed up the entry of requests by using the number generated on the Course Availability List (NBR column) to locate the request. To do this, select the List Number View and enter the Course Availability number in the List Number lookup, and then click Add or press the Alt-A key combination on your keyboard. You do not need to enter leading zeroes.
Note	If a Course Wish Group does not appear (any list at all, or a specific list), then it was not created. A Course Wish Group must be created and a Course Availability List must be added for that Course Wish Group before the group appears on this screen.
	The Courses are listed with their associated Course request number (in the NBR column) to help select the correct Course per the selections made by the student on the Course Availability List that was generated.
	Each Course on the Course Availability List is a hyperlink you can click to view more information about the Course.
	If there are more than 75 Courses listed, the additional Courses appear on another page. Click the next page number or click Next Page to see the next 75 Courses.

6. Click Add to select a Course. After you click Add, the selection is now titled Drop. Once you add a Course as a request, you can delete it by clicking Drop.

Note	After a Course is added as a request, the Course request number appears in red and an asterisk (*) appears next to the Course request number. This means the Course has been requested for the student.

7. When you've added all desired requests, click Finish.

The selected Course requests appear for the student in the Course Requests area. Click the arrow next to Course Requests to expand this area if they do not appear.

Note	If a request has been made for multiple terms or terms have been excluded, the value in the Term column appears in pink. Click on the Term value (when you hover your mouse over the Term value, it appears as a hyperlink). The Include/Exclude Student Request for Terms for Course XXX screen appears indicating the specific Start and Stop Terms of the multiple term request or the excluded terms.

Adding Requests by Course

This option allows you to enter requests without creating an Availability List. The Courses available for selection are all active Courses in the Course Master, even if the grade ranges of the Course do not match that of the selected student.

To add requests by Course:

1. Go to Student Management\Office\FS\RP\ES.

2. Select a student and click the arrow to the left of the student's last name.

3. Click the arrow next to Course Requests to view the current Course requests for the selected student.

Tip	Requests can be edited or deleted from this screen. In addition, the Total Credits Requested, Total Credits Scheduled and Total Academic Minutes values appear for the selected student.

4. Click the Add By Course link to add and/or drop requests. A list of all active courses in the Course Master appears regardless of their Schedule Type (Normal, Manual, Special Education or Dropped Course).

Note	A Course with no Sections will have a No in the Fit column, but can still be requested.

5. Select the desired Course and click Request.

Note	If a Course is selected and the grade ranges specified do not match the student's grade level (based on the year being scheduled), a message describes the mismatch between the Course and student's grade level.

If the Class Control Set screen appears, select Any Available Normal Control Set to have the software determine the best control set at the time the request is scheduled, or select a specific Normal or Subset Control Set. If the multiple term options appear (Number of Terms, Term Options and Scheduler Terms), make desired selections. Click Save. To learn more about the multiple term selections you can make, see Table 1 (page 25).

Note	To control whether the Class Control Set screen appears, see step 4 in "Enter Requests Using the Quick Entry Screen" (page 20).
	A Subset Control Set (specific terms of a Normal Control Set) only appears for selection in the Class Control Set screen if students are allowed to enroll in a subset of a Course Length Set (for example, if a student is allowed to enroll in Term 1 of a semester-long Course or allowed to enroll in Term 1-3 of a year-long Course). The ability to select a subset for a request is enabled by selecting the Allow Student to Take a Subset option on one or more subsets of a Course Length Set (Student Management\Office\FS\BC Setup\CO\CL).
	If the Allow Multiple Term Requests option (Student Management\Office\FS Setup\CF\SE) in Scheduling Options is enabled, you can make additional term selections (Number of Terms, Term Option and Scheduling Terms) on the Class Control Set screen. These additional term selections will not appear for a year-long Course if the Allow Student to Take a Subset option has been enabled for any subset of the Year length Control Set.
	If the Allow Student to Take a Subset option is not enabled on any subset for a Course Length Set and the Allow Multiple Term Requests option is also not enabled, you can only select a Normal Class Control Set or Any Available Normal Control Set.

6. The Course request is added for the student. Repeat Step 5 to add additional requests as desired.

Note	If a Course Code appears in red text, the Course has already been requested. You cannot request a Course for a student more than once. If you try to request a Course with red text, a message says it has already been requested.

7. When you've added the desired requests for the student, click Finish.

The selected Course requests appear for the student in the Course Requests area. If they do not appear, click the arrow next to Course Requests to expand this area. You can use this area to delete course requests if necessary.

Use the Mass Add/Change/Delete Student Requests Utility

Often, a large group of students share common requests (such as core classes), especially in elementary and middle schools and in schools using block scheduling. To reduce the time it takes to enter student requests, use this utility to assign groups of students the same request(s). Once added, only unusual situations or elective requests need to be entered. You can also use the utility to change or delete requests for a Course, or to mass delete all requests.

The Exclusion option in this utility allows you to exclude students who have specific Course requests from being included when the utility is run. In other words, all of the students within the entered ranges are assigned the selected Course/Section except students who have the Course selected within the Exclusion option.

Note	All 10th grade students are to be given a request for Biology except students with a request for AP Biology or Introduction to Biology. Both AP Biology and Introduction to Biology are selected as exclusions. The students in the basic and advanced Courses are typically manually scheduled in those Courses or requests for those classes were entered earlier for specific students.

To use the Mass Add/Change/Delete Student Requests Utility:

1. Go to Student Management\Office\FS\RP Setup\UT\MA.

2. Click Add.

3. Verify that the school year selected is correct. The default is the school year being scheduled.

4. Select the desired process for determining how the change is processed (Individual, Multiple Students, Range or Course). Make appropriate selections with the corresponding button (Individual, Multiple Students, Range or Course).

Note	If Course is selected, you have additional options of School Year Courses From (Year), Dropped Students, Display Inactive Classes, and Inactive NY Status. You can use this process to add students in a Section of a homeroom class in the current school year to copy them to a Section of a homeroom class in the year you are scheduling.

5. Click OK, Save or Select, as applicable.

6. (Optional) If the Range option is selected in step 4, click Exclusions and select Courses. Requests for students in the ranges will not be added, changed or deleted if the student already has a request for a Course selected as an exclusion. Click Save.

7. Select Add Course/Class in the Process Type area of the screen. Make Course and/or Class (Section) selections and click Save or Select.

Note	To add an unscheduled request, click the Course Request button and select the desired Course(s). To add a scheduled request (where each student is scheduled into a specific Section of a Course), click the Scheduled Class button and select the desired classes (sessions). Or, add a combination of unscheduled and scheduled requests.
	When requests (scheduled or unscheduled) are added, the utility does not adhere to constraints, such as verifying whether the student's grade matches the grade level of the Course being added, whether the co-requisite for the Course should also be added, or whether adding the Scheduled Class(es) will double-book the student in one or more class periods.

8. Click Save and Process. A preview is created and a message states that the process has completed.

9.   Click Preview Data to Process. A list of students to be processed appears.

10. Review the list of students for accuracy. To exclude a student from the process, select the student and click Remove From Update and then click Yes.

11. When you've finished removing and reviewing Student Records, click Back.

12. Click Run the Update. A message states that selecting OK will run the process and make the changes permanent and that the update process runs through the print queue.

13. Click OK.

A report is generated that lists the students and the Course and/or class that was processed. The total Exclusions value (if selected) is listed. This is the number of students for which a request was *not* added. The last page of the report includes the total number of students processed and the total number of Student Class Records that were updated.

Use Family Access to Generate Student Requests

Students and guardians can use the Course Request application in Family Access to view and update their Course Requests for a current or future term or school year. Typically, the application is used by a school in a lab environment, allowing groups of students to enter their Course Requests simultaneously or at home with a guardian. The application also allows entry of Alternate Requests.

Before Course Requests can be entered in Family Access, a Course Wish Group (Student Management\Office\FS\RP Setup\CO\CW) must be added with the option Use This Course Availability List in Family/Student Access selected.

Note	To create specific grade level date and time lists for scheduling see "Restrict Access to Course Availability Lists by Grad Year" (page 13).

To learn more about generating passwords and configuring Family Access for Course Request entry, see "Configuring Security" in the *WSIPC Guide to Family and Student Access Administration and Management*. To learn more about entering requests in Family Access, see "Adding a Course Request" in the *WSIPC Guide to Family and Student Access for Students and Guardians*.

Assign a Recommendation to an Individual Student as a Request

A teacher (through Educator Access Plus) or other user (through Skyward's School Management System) can assign recommendations for the next school year for students based upon the student's current year scheduled Courses (referred to as Previous Year Courses). That recommendation must then be approved (based on the district's business practice) and assigned to the student as a request for the next school year. This can be done one recommendation at a time for a student, or several recommendations can be added as requests at once for a student.

Note	Recommended Courses appear with an asterisk (*) to the right of the Course description in the Available and Selected Course Requests in Student and Family Access.

Assigning One Recommendation to an Individual Student as a Request

You can assign one recommendation to an individual student as a request.

To assign one recommendation to an individual student as a request:

1. Go to Student Management\Office\FS\SS\BS.

2. Click the arrow next to the last name of the student who will be assigned a recommendation.

3. Next to the Course Recommendations heading, click Add Course Recommendation.

Note	The heading will not appear unless the Use Course Recommendations option has been enabled in Scheduling Entity Year Setup (Student Management\Office\FS Setup\CF\SE) in Entity Year Options.

4. (Optional) Click Previous Year Course and select the current year Course for which you are making a recommendation. The list of Courses is the student's current year schedule.

5. In the Recommended Course box, enter the Course you are recommending for the student. If the list is empty, recommendations have not been assigned to the Previous Year Course you selected in Step 4.

Note	Recommendations are assigned to Courses through the Curriculum Master (Student Management\Office\CA\CM\CM).

6. Click Save. The Recommended Course or the paired Previous Year Course and Recommended Course appear in the Course Recommendations list.

Note	Unpaired Recommendations are also added as Course Requests when saved.

7. Repeat steps 3 through 6 for all recommendations you are assigning for the student.

Assigning Several Recommendations to an Individual Student as a Request

You can assign several recommendations at once to an individual student as a request.

To assign several recommendations to an individual student as a request:

1. Go to Student Management\Office\FS\SS\BS.

2. Click the arrow next to the student's Last Name.

3. Click the arrow next to Course Recommendations. Any existing recommendations appear.

Note	The heading will not appear unless the Use Course Recommendations option has been enabled in Scheduling Entity Year Setup (Student Management\Office\FS Setup\CF\SE) in Entity Year Options.

4. Do one of the following:

    ▪ To create a single request, click Request next to the desired Course recommendation.

    ▪ To create requests for all recommendations for the selected student, click Request All Recommended Courses and click OK.

The recommendations are added as requests to the Schedule area for the student. In the Course Recommendations area, the recommendations have a Status of R - Requested.

Mass Request all Recommended Courses

This process creates requests for all recommended Courses for selected individual students or a range of students. Recommended Courses must first be added for students. Recommendations marked as dropped are not added as a request.

To mass request all recommended Courses:

1. Go to Student Management\Office\FS\RP Setup\UT\RR.

2. Click Add.

3. Verify the School Year selected.

4. Select a processing method in the Process By box and then select individual students or a range of students.

5. Click Save and Process. A preview is created and a message states that the process has completed.

6. Do one of the following:

    ▪ If the message also states that no records are found, click Back and review the Process By selections.

    ▪ If the message states that records are found to process, click Preview Data to Process.

7. A list of students to be processed appears. Review the list of students for accuracy.

Tip	To exclude a student from the process, select the student and click Remove From Update and then click Yes.

8. When you've finished removing and reviewing Student Records, click Back.

9. Click Run the Update. A message states that selecting OK will run the process and make the changes permanent and that the update process runs through the print queue.

10. Click OK. A report of all students and the requests created for them is generated.

Process Alternate Requests

Just as requests can be entered for a student, you can also enter alternate requests. Alternate requests are entered specifically as alternates and do not count toward the credit count of regular requests. If the Auto Scheduler can't schedule a student into a requested Course, the requests entered as alternates can be used to schedule the student into other Courses. This can be done by manually scheduling students into the requests they have added as alternate requests, or can be done using the Schedule Alternate Requests Utility.

Alternate requests can be entered as any of the following:

- Individual student requests in Request Entry By Student.

  - Addressed in this Guide in "Enter Requests By Student" (page 27).

- Course alternates in the Course Master.

  - To learn more about course alternates in the Course Master, see "Step 7: Maintain the Course Master, Pair Alternate Courses" in the *WSIPC Guide to Future Scheduling: Part One - Preparing to Schedule*.

- Individual student requests in Family/Student Access.

  - To learn how to configure student requests in Family/Student Access, see "Configuring Course Requests" in the *WSIPC Guide to Family and Student Access Administration and Management*. To learn more about entering alternate Course requests, see "Requesting Alternates" in the *WSIPC Guide to Family and Student Access for Students and Guardians*.

When the Schedule Alternate Requests process is run, there are three ways alternates can be processed: Course Paired, Student Paired or Unpaired.

When Course Alternates are entered in the Course Master, they are called Course Paired Alternates. To learn more about Course alternates in the Course Master, see "Step 7: Maintain the Course Master, Pair Alternate Courses" in the *WSIPC Guide to Future Scheduling: Part One - Preparing to Schedule*.

When a request is entered for a student, it can be "paired" (matched) with a regular request already entered for the student. This is called a Student Paired request. This tells the Schedule Alternate Requests process that if a request could not be scheduled, to instead schedule the specified alternate request in its place. This process requires the entry of all alternate requests that a student might want to take for *each* regular request that was entered for the student. For example, a student enters a request for Aerobics, and the student wants to take Weight Training if Aerobics can't be scheduled. First, an Alternate Request must be entered for Weight Training. Then, the Alternate Request must be "paired" with Aerobics. Several alternate requests can be entered for each regular request. When the requests are "paired," each alternate request must also be placed in order according to the student's preference.

An alternate request can also be entered for a student and not be paired with a specific request. This is called an Unpaired request. When the Schedule Alternate Requests process runs, it swaps elective Courses for an alternate request, trying to get a conflict free schedule. There is an option in this process that does not allow scheduled Courses to be changed in the student's schedule. To learn more about this option, see "Step 4: Schedule Student Alternate Requests" in the *WSIPC Guide to Future Scheduling: Part Four - Scheduling Students*.

Best Practice	Alternate requests can be entered for a student and not paired, which saves entry time. After the Auto Scheduler is run for regular requests, a student's conflicts can be resolved one of two ways. First, the student's alternate requests can be used as a reference for a counselor to resolve the student's conflicts manually (without using the Schedule Alternate Requests process). Second, the alternate requests can be scheduled automatically by the software using the Schedule Alternate Requests process, selecting the Unpaired processing option.

Add Alternate Requests for an Individual Student

To add alternate requests for an individual student:

1. Go to Student Management\Office\FS\RP\ES.

2. Expand a student's record.

3. Next to the Alternate Requests heading click Add Alternate Request. A list of all active Courses in the Course Master appears regardless of their Schedule Type (such as Normal, Manual, Special Education or Dropped Course).

4. Select the check box next to each Course you want to enter as an alternate request for the student.

Note	If a Course is selected for which the grade ranges specified do not match the student's grade level (based on the year being scheduled), a message explains the mismatch between the Course and student's grade level. Click Add Alternate to add the alternate request or click Cancel.
	If a Course has already been selected as a request for the selected student, a message states that the Course can't be added as an alternate request.

5. When all alternate requests have been selected, click Save. The selected alternate requests appear for the student in the Unpaired Alternates area. If they do not appear, click the arrow next to Alternate Requests and/or Unpaired Alternates to expand this area.

6. If more than one alternate request has been added for a student, the alternate requests should be prioritized in the order that the student prefers that they are scheduled. Click the blue arrows to move an alternate request up or down in the order column.

Note	To change an alternate request into a regular Course request, click MR (Move to Requests).
	To remove an alternate request for the selected student, select the Course and click D to delete the request.

Pair Alternate Requests for an Individual Student

To pair alternate requests for an individual student:

1. Go to Student Management\Office\FS\RP\ES.

2. Select a student and click the arrow to the left of the student's last name.

3. Click Pair Alternates.

4. Select the Course in the Requested Courses list that you want to pair with one or more alternate requests. These are the existing Course requests.

5. Select the Course in the Alternate Courses list that you want to pair with the selected Course request.

Note	If the alternate request you want does not appear, click Add Alt to add it. Select the Course(s) and click Save. To remove an alternate request, select the Course and click Delete.

6. Next to the Requested Courses and Assigned Alternates list, click Add Pair.

7. Repeat steps 5 and 6 for any additional alternate Course requests you want to pair with the selected Course request.

Note	To remove pairs, click Delete Pair next to the Requested Courses and Assigned Alternates list.

8. Repeat steps 4 through 7 to pair alternate requests with a different Course request.

9. Once the alternate requests are paired with the desired Course requests, click Finish.

10. The pairs appear for the student in the **Paired Alternates** area. If they do not appear, click the arrow next to **Alternate Requests** and/or **Paired Alternates** to expand this area.

11. If more than one set of paired alternates exists for a student, prioritize the paired alternates in the order that the student prefers that they are scheduled (when needed). Click the blue arrows to move a paired alternate up or down in the order column.

Note	To remove a pair, click Delete next to it.

Step 3: Enter Student Scheduling Constraints

You can assign Scheduling Constraints to students in situations where they must be–or cannot be–scheduled with a specific teacher. You can do this for a specific Course or for all Courses that the teacher is assigned to teach. Scheduling Constraints are School-Year specific.

To enter student Scheduling Constraints for an individual student:

1. Go to Student Management\Office\FS\SS\BS.

2. Select a student and click the arrow to the left of the student's last name.

3. Click **Add Scheduling Constraint** next to the **Scheduling Constraints** header.

4. Select the **Source** of the requested constraint (**Admin, Parent, Student,** or **Teacher**).

5. Select one of the following Constraint Details for this student:

   ▪ This Student must be scheduled into
   ▪ This Student cannot be scheduled into
   ▪ Try to schedule this student first into

6. Select one of the following options next to a section of:

   ▪ A specific course: The Course button becomes available so you can select the Course.

   ▪ Any course.

7. In the Teacher box, select a teacher.

8. (Optional) Enter any Reason/Notes to explain the constraint.

9. Click Save.

Step 4: Use Reports to Analyze Student Requests

The numbers of student requests per Course are used to determine the number of available Sections to create for each Course in the Course Master. Therefore, it is important to verify that students do not have too few, too many, or no requests. In Request Processing Entry by Student (Student Management\Office\FS\RP\ES), you can easily see the total number of requested and scheduled credits, number of requests, and number of scheduled classes when the View is set to Student Details or Course Requests. Student requests can then be modified from this screen.

You can also use reports to find students with incomplete schedule requests. The following reports focus on information about requests that have been entered for students. They help determine such things as which requests a student has made and what the student needs to take to meet the school's requirements. Each report is described below.

To use reports to analyze student requests:

- Go to Student Management\Office\FS\RP\RE.

To run the Students Missing Specific Courses/Subjects Report:

- Go to Student Management\Office\FS\SS\RE\MR.

To run the Non-Occurrence Report:

- Go to Student Management\Office\FS\RE\WS\NO.

Student Request Report

The Student Request Report generates a list of students and their scheduled and requested Courses. You can report on All Students, Only Students with Requests, Only Students without Requests or Only Students with Dropped Courses. You can also use Credit/Request Ranges on the report template to generate the report for students who have less than, more than or an exact number of Credits (Earned or GPA), Requests or Academic Minutes.

Note	If a full schedule is six credits, enter *only* a maximum of six credits per student. If you enter more requests than constitutes a full schedule it will appear that more seats are needed than actually are required, and Course and student conflicts will be inflated. If students do not have enough credits entered to represent a full schedule, there may not be enough Sections created to accommodate all students. To avoid these situations when creating the Schedule Master, use this report to identify students who do not have a full set of requests.

Once you determine which students have too many or too few requests, work with specific students to modify their requests. This report can include the printing of Alternate Requests and the origin of the Course requests (Student Access, by Office Staff or both).

You can run this report several times and save a different template for each version of the report. At a minimum, run this report to identify the following students:

- **Students with no requests entered**: To find these students, select Only Students without Requests in the Report Option area.

- **Students with too many requests or with too few requests to constitute a full schedule**: To find these students, select Only Students with Requests in the Report Option area. In the Credit/Request Ranges area, configure your screen based on the method you use to determine whether a student has a full schedule (number of earned or GPA credits, number of requests, or number of Academic Minutes). Figure 5 is configured to find students who have less than or more than 6 Earned Credits, so the value in the Credits boxes is the same, and equal to the number of credits that constitutes a full schedule.

Use this report to determine which students have too many requests or not enough requests to constitute a full schedule. Having the correct number of credit requests for every student helps you build a better Schedule Master.

▪ **Students with requests for courses that have a Schedule Type equal to Dropped Course:** To find these students, select Only Students with Dropped Courses in the Report Option area.
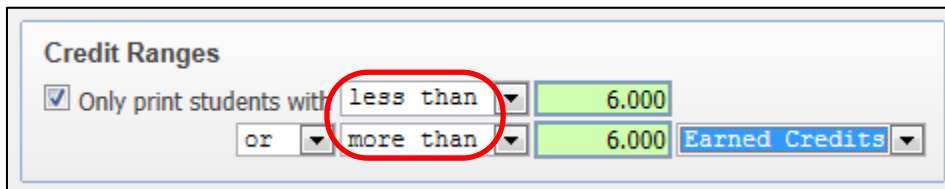

Figure 5 - The Configuration for Credit Ranges area on the Student Request Report screen

Best Practice	Run and save this report as a PDF for backup in case anything happens to student requests before schedules are complete. This information is helpful if all requests have to be re-entered. Select the Report Option of All Students or Only Students with Requests, as well as Include Scheduled Classes in case there are any scheduled requests that have been manually entered. Optionally, select Print Student Alternate Requests.

Course Requests in Course Sequence Report

The Course Requests in Course Sequence Report generates a list of students who are scheduled into, or who have a request for, the individual or range of Courses you select on the report template. There is an option to print student names on the report template. If you do not choose this option, only the Course totals by grade level and gender appear on the report. This report is not a Section-by-Section breakdown or a class list. Students on the report with an asterisk next to their names are scheduled into a Section of the Course.

Note	You can use this report to find any Courses you may want to drop based on a low number of requests. If any are found, you can set the Schedule Type in the Course Master to Dropped Course. Later, you can delete or move the requests for Courses with a Schedule Type of Dropped Course.

Best Practice	Run and save this report as a PDF for backup in case anything happens to student requests before schedules are complete. This information is helpful if all requests have to be re-entered. Select the Report Type of *By Course Range* and the Print Option of *Print Student Names*.

Students Missing Specific Courses/ Subjects Report

The Students Missing Specific Courses/Subjects Report (Student Management\ Office\FS\SS\ RE\MR) is a helpful report for finding students who are missing requests for required or core classes. If students meet the criteria, they are not listed on the report. If multiple Courses or Subjects are selected, the software determines whether the student has requested or is scheduled into at least one of the selected Courses or Subjects.

For example, a student may have enough requests or credits to constitute a full schedule, but he or she is missing a request for an English or Math class. You can find the student's missing requests by Course or Subject.

Students with Specific Combination of Courses Report

The Students with Specific Combination of Courses Report generates a list of students who are scheduled into, or who have a request for, the Courses you identify on the report template. You can use this report to find students who are taking a specific combination of Courses and perhaps should not be taking the Courses in combination. Or, you can use this report in combination with another report such as a student list by grade level or a list of those students who have a request for each Course, to determine which students are not taking both Courses but should be (such as a Physics Course and a Physics Lab).

Pre-Requisite Verification Report

The Pre-Requisite Verification Report generates a list of students who have requested Courses, or are taking Courses, for which there is a prerequisite. If a student requests a Course (of any length) that has a prerequisite, the report verifies whether the student has taken the prerequisite Course in the following areas: student's history from previous years, student's current year schedule, and student's requests for next year.

You can generate this report for only Courses with prerequisites met, only Courses with prerequisites not met, or both conditions. If prerequisites have been met, the report shows the prerequisite Course's name and the year it was taken.

Repeated Courses Report

The Repeated Courses Report generates a list of all students within the Student Ranges and Course Ranges on the report template who have either requested or have been scheduled into a Course they have taken in a previous entity and/or school year. You can use this report during the request verification process to determine if a student has incorrectly requested a Course he or she has already taken. The report contains a summary of the students with repeated Courses or, if you choose the Print Option of Detail, the report includes the Course information.

For this report to run effectively, the Curriculum Master must be properly implemented within the district and Entity. For information about Curriculum Master, see the *WSIPC Guide to Curriculum Master*.

Four Report Options on the template specify which Courses are included in the report. Table 2 describes each report option.

Option	Description
Include Courses Repeatable For Credit	Includes Courses that can be repeated for credit (for example, Band and Choir). The Course must have the Repeatable For Credit check box selected in the Course Master area to qualify under this option.
Exclude 0.0 Credit Courses	Excludes Courses from the Course Master with zero earned credit values.

Option	Description
Print Only Repeats of Courses Currently Taken	Includes only repeated Courses the student is requesting or scheduled into for the School Year to be scheduled.
Print Only when Student Credits Exceed Course Credits	Includes only Courses where the student has earned (or will earn) more credits than the Course is worth. This occurs when a student repeats a Course and earns credit both times. Because the student earns credit both times, the student gets more credit for this Course than it is actually worth (twice the amount). You must run a GPA Calculation before you select this option for this report.

Table 2 - Report options on the Repeated Course Report template

Registration Confirmation Report

The Registration Confirmation Report generates a list of unscheduled Course requests and scheduled classes. The report can also include additional information such as Alternate Course Requests, Course Fees, Recommended Courses and general comments. You can send this report to guardians to verify student requests or schedules and any Course or miscellaneous fees.

Student Alternate Request Report

The Student Alternate Request Report generates a list of students and their Alternate Requests. This can be used to fill in student schedules when students have too few requests, but have Alternate Requests. When used with the Free Period Report after the scheduling process, this report helps place students into an Alternate Request Course for any period they have open.

Course Alternate Request Report

The Course Alternate Request Report lists the number of alternate requests per Course and the students who have an alternate request for that Course. The report contains three main sections of data: Course row, Student information, and Totals information (Figure 6).

Information about the Course appears in the Course row. This includes the number of Requests for the Course, the students currently scheduled into each Course (shown in the column labeled Assigned), the Available seat count for each Course, and a Credit total representing the Earned Credit value for the Course.

Each student with an Alternate Course request is listed under the **Course** row, in the **Student Information** area, which includes details such as the student's Grade Level (shown in the column labeled **GR**) and the Priority/Order of the request (shown in the column labeled **P**).

Additionally, Totals information is listed for each Course that has students with an alternate request. The information details the number of alternate requests per Grade Level, and a breakdown by female and male, as well as a total number of requests for the Course.

Figure 6 - The Course Alternate Request Report showing the Course row, student and totals information

Course Catalog Report

The Course Catalog Report lists all Courses in the Course Master and provides specific information that you designate, for each Course. This report is helpful to students prior to deciding on or entering requests, to see a list of available Courses and their curriculum explanation. To include the curriculum explanation for each Course, the Curriculum Master must be properly implemented within the district and Entity. To learn more about Curriculum Master, see the *WSIPC Guide to Curriculum Master*.

Non-Occurrence Report

The Non-Occurrence Report (Student Management\Office\FS\RE\WS\NO) generates a list of students who have not taken, have failed, or have dropped a specific Course or Courses. The report checks for specific Courses in a student's Course history and in their current and future schedules.

Continuing the Future Scheduling Process

This concludes Future Scheduling: Part Two - Managing Student Requests. To continue the Future Scheduling process, see the *WSIPC Guide to Future Scheduling: Part Three Building the Schedule Master.*

Appendix A – Future Scheduling Checklist

This checklist helps you to track your progress throughout the scheduling process. Each step in the checklist is followed by one of the terms in the table below.

Term	Description
Required	Step *must* be performed to create a Schedule Master and to schedule students using an automated method.
Recommended	Step *should* be performed to achieve best results in the scheduling process.
Perform as Needed	Data in this area may or may not need to be adjusted from last year's settings or configuration. Change data that needs updating.
Optional	Processes are not required to create a Schedule Master or to schedule students using an automated method.

PART ONE: Preparing to Schedule

☐ **Step 1:** Update Graduation Years and Grade Levels *(Required)*

☐ **Step 2:** Maintain Scheduling Setup and Codes *(Required)*
   ☐ Check the Status of Clone Utilities
   ☐ Clone the Entity Year and Term Definitions
   ☐ Clone the Calendar Information
   ☐ Clone the Scheduling Master Files
   ☐ Confirm the Accuracy of Course Length Sets and Class Control Sets
   ☐ Validate the Entity's Grading Setup
   ☐ Add Day Patterns to be used
   ☐ Setup Scheduling Period Times

☐ **Step 3:** Add Students to an Entity *(Required)*
   ☐ Run the Mass Add Students to an Entity Utility
   ☐ Review the Report of Students Added to Other Entities
   ☐ Check the Error Report
   ☐ Delete Student Enrollment Records from the Receiving Entity

☐ **Step 4:** Maintain Staff *(Perform as Needed)*
- ☐ Create Staff Records
- ☐ Update and Maintain Staff Entity Record
- ☐ Add Department to Staff Records
- ☐ Create Do Not Schedule Time Entry Record(s)

☐ **Step 5**: Verify Scheduling Configuration *(Perform as Needed)*
- ☐ Review Scheduling Entity Year Setup
  - ▪ Maximum Semester, Term and Period Values
  - ▪ Entity Year Options
  - ▪ Scheduling Options
  - ▪ Term Definitions
  - ▪ Course Defaults
- ☐ Select Scheduling Configuration Options
- ☐ Choose Scheduling Lock Options
  - ▪ Lock Auto Scheduler
  - ▪ Lock Unschedule Utility
  - ▪ Lock Course Master Editing

☐ **Step 6:** Run Course Master Utilities *(Recommended)*
- ☐ Create a Course Master Backup
- ☐ Run the Mass Change Course Master Fields Utility
- ☐ Calculate Student Section Counts
- ☐ Update Control Sets Possible
- ☐ Restore to a Selected Course Master Backup

☐ **Step 7:** Maintain the Course Master *(Perform as Needed)*
- ☐ Clone Course Master Files from One Entity to Another
- ☐ Add, Edit and Delete a Course, Section and Meet
- ☐ Clone a Course in the Course Master
- ☐ Build a Course Time Table
- ☐ Pair Alternate Courses
- ☐ Assign a Co-Requisite to a Course
- ☐ Assign a Co-Requisite to a Section
- ☐ Create Prerequisite Requirements for a Course
- ☐ Generate the Validation Report

☐ **Step 8**: Create Scheduling Teams *(Optional)*
- ☐ Add Scheduling Team Codes
- ☐ Update Course and Sections with Scheduling Team Assignments
- ☐ Assign Students to a Team
- ☐ Modify Individual Student Team Scheduling Assignments
- ☐ Produce a Scheduling Team Roster

☐ **Step 9:** Create Scheduling Categories *(Optional)*
   - ☐ Add Scheduling Category Codes
   - ☐ Update Course Sections with Scheduling Categories
   - ☐ Mass Add and/or Delete Student Scheduling Categories
   - ☐ Modify Individual Student Scheduling Categories

PART TWO: Managing Student Requests

☐ Step 1: Create an Availability List *(Optional)*
   - ☐ Add a Course Wish Group
   - ☐ Create a Course Availability List
   - ☐ View/Print a Course Availability List

☐ Step 2: Enter Requests *(Required)*
   - ☐ Add Student Course Requests
   - ☐ Process Alternate Requests

☐ Step 3: Enter Student Scheduling Constraints *(Optional)*

☐ Step 4: Use Reports to Analyze Student Requests *(Recommended)*
   - ☐ Student Request Report
   - ☐ Course Requests in Course Sequence Report
   - ☐ Students with Specific Combinations of Courses
   - ☐ Pre-Requisite Verification Report
   - ☐ Repeated Courses Report
   - ☐ Registration Confirmation Report
   - ☐ Student Alternate Request Report
   - ☐ Course Alternate Request Report
   - ☐ Course Catalog Report
   - ☐ Non-Occurrence Report

PART THREE: Building the Scheduling Master

☐ **Step 1:** Calculate the Number of Sections Needed *(Recommended)*
   - ☐ Estimate the Number of Sections Needed
   - ☐ Compare the Estimated Number of Sections and Actual Number of Section Values

☐ **Step 2:** Create Sections *(Required)*
   - ☐ Run the Auto-Generate Section and Class Meet Records Utility

☐ **Step 3:** Estimate the Number of Students in Each Section *(Recommended)*
   - ☐ Run the Update Estimated Class Counts by Grade Utility

☐ **Step 4:** Prepare Meeting Patterns for Placement in the Schedule Master *(Recommended)*
   - ☐ Run the Initialize Class Meet Details Utility

☐ **Step 5:** Calculate Potential Conflicts in the Schedule Master *(Required)*
  ☐ Create the Conflict Matrix

☐ **Step 6:** Learn to Use the Interactive Scheduling Board and the Master
      Schedule Builder *(Recommended)*
  ☐ Scheduling Using the Interactive Scheduling Board
  ☐ How to Place Sections Using the Interactive Scheduling Board
  ☐ Scheduling Using the Master Scheduling Builder
  ☐ Scheduling Using both Methods Interchangeably

☐ **Step 7:** Schedule Sections into the Schedule Master *(Required)*
  ☐ Place Single-Section Courses in the Schedule Master
  ☐ Run the Auto Scheduler in Imperative Mode or Pseudo Mode
  ☐ Run Schedule Run Details and Reports
  ☐ Make Adjustments to the Course Master
  ☐ Place Multiple-Section Courses in the Schedule Master

PART FOUR: Scheduling Students

☐ **Step 1:** Manually Place Students in Sections *(Optional)*

☐ **Step 2:** Schedule Student Requests *(Required)*
  ☐ Run the Auto Scheduler in Actual Mode, or
  ☐ Perform Online Arena Scheduling
    ☐ Configure Family Access / Assign Passwords and Skyward's School
      Management System
    ☐ Enable Entity Year Options
    ☐ Select Course Master Options
    ☐ Set Student Scheduling Status
    ☐ Define Scheduling Time Periods

☐ **Step 3:** Use Reports to Analyze Student Schedules *(Recommended)*
  ☐ View Schedule Run Details and Reports
    ☐ Run and interpret the results of the Student Conflict Detail Report
    ☐ Run and interpret the results of the Course Conflict Report
    ☐ Run and interpret the results of the Conflict Totals Report
  ☐ View Student Schedule Generation Reports
  ☐ Make Adjustments to Student Schedules

☐ **Step 4:** Schedule Student Alternate Requests *(Optional)*

PART FIVE: Concluding the Scheduling Process

☐ Schedule an Individual Student *(Optional)*

- ☐ By Course
- ☐ By Period
- ☐ By Subject
- ☐ By Teacher
- ☐ By Open Classes
- ☐ By Class

☐ Use Scheduling Groups to Schedule a Student *(Optional)*

- ☐ Create a Scheduling Group
- ☐ Clone Scheduling Groups
- ☐ Assign a Scheduling Group to a Student

☐ Delete Unscheduled Requests *(Optional)*

☐ Fill Gaps in a Student's Schedule **(Recommended)**

☐ Running Reports *(Recommended)*

- ☐ Class Mailing Labels Report
- ☐ Class Roster Report
- ☐ Course/Class Count Report
- ☐ Student Schedules
- ☐ Schedule Cards Report
- ☐ Teacher Schedules Report

Appendix B – Scheduling Process Diagram
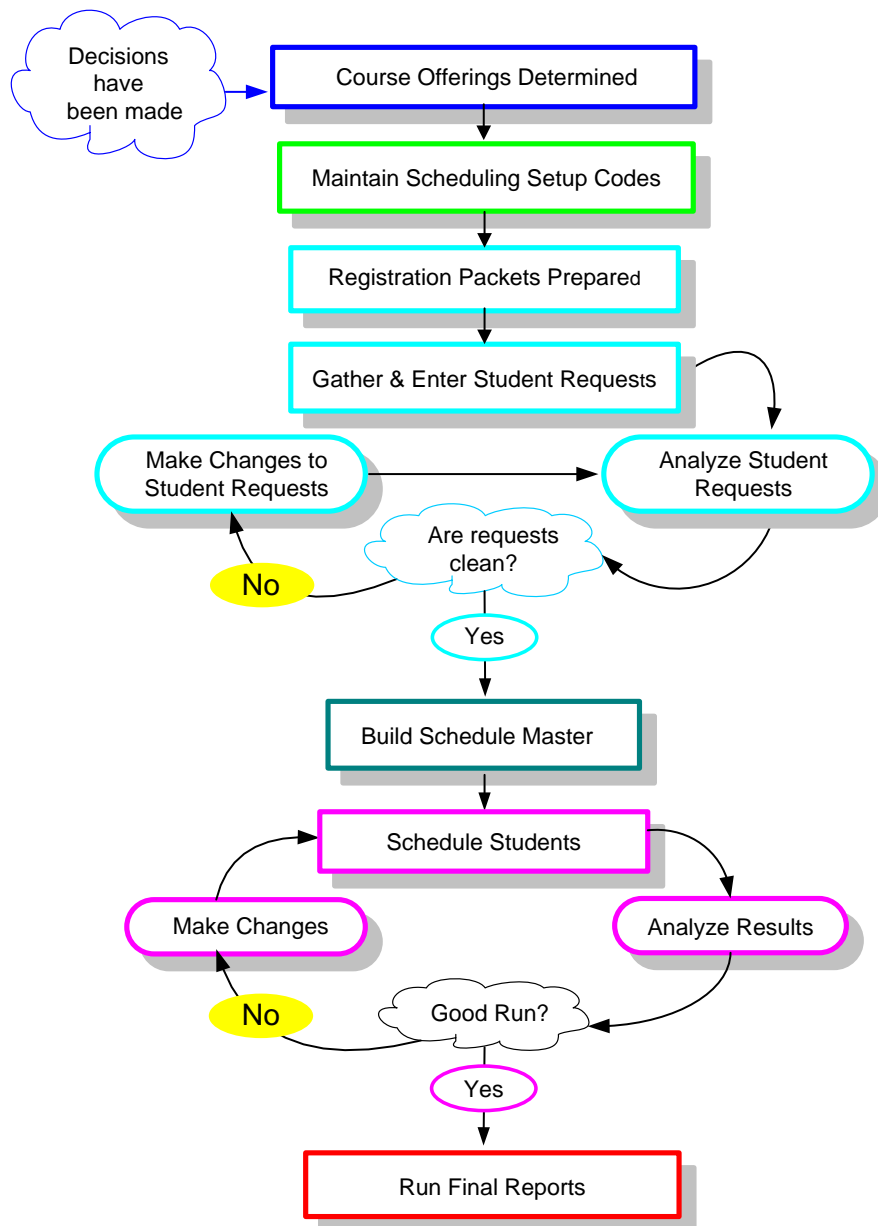
Appendix C – Glossary of Scheduling Terms

Balance
Refers to the equality of the size of classes within a Course. That is, are all of the classes similar in size, or are there large discrepancies in the class sizes.

Conflict
A situation where several of the Courses that a student has requested are scheduled into the same period or periods. As a result some Courses are not scheduled and remain in the student's schedule as a request.

Constraint
Any condition which limits or restricts the scheduler in placing Course Sections in the Master Schedule.

Doubleton
A Course that has two Sections.

Imperative
A Course request with only 1 Section of a Course available.

Initializing
The process of resetting one or more fields in Meeting Pattern Records back to Schedule Master.

Lock-in
A Course Section that must be scheduled into a specific Period of the Master Schedule.

Multiple-Section Course
A Course that has more than two Sections.

Singleton
A Course that has only one Section.

Appendix D – Summary of Auto Scheduler Logic

Determination of Sequence of Students to Schedule

The highest level of student ordering is the student's Next Year graduation year or grade level. You can control the ordering of grade levels using the Grad Yr/Grade range on the **Student Schedule Generation** screen. Each grade is processed through both the Imperative and Non-Imperative passes (Loops) before the next grade level is started.

The order within each grade level is determined by whether or not the option to **Balance by Student Attributes** is selected and by the relative difficulty of the student's schedule. This is based upon the total number of Sections (Estimated Sections) for all of the student's requests and the number of requests. Student requests with fewer Sections and more requests are assumed to be more difficult to schedule. If the option to **Balance by Student Attributes** is selected, then the students will be ordered or sorted first by the attribute(s) and then by their difficulty.

The following example illustrates the Auto Scheduler logic for determining sequence of students to schedule:

- If the selected attributes are Race first and Gender second, the ordering within a grade level will be as follows:

    - Minority females first, minority males second, non-minority females third and non-minority males last.

Note	The term "minority" above refers to the Minority selection on Race Codes (Student Management \Advanced Features\NA Setup\CO\RC). These Race Codes are referred to as the Local Race in Washington State and are not typically maintained in Washington districts.

Auto Schedule Logic when Scheduling Individual Student

The Auto Scheduler process works in two separate loops after the student grouping is determined. In the first loop it schedules the student's Singletons based on imperatives and derived Imperatives (defined as follows) and then it schedules all remaining Arbitrary (multiple-Section Courses):

- True Imperatives: only 1 section of a Course, or all Sections of a Course meet in the same Term/Period/Day

- Derived Imperative: only 1 Section of a Course is now available as any other Section cannot be scheduled due to another Course being scheduled in that Section's time period

The order in which the Auto Scheduler processes an individual student's *Singleton* requests (Loop 1) is as follows:

- Scheduling Priority: 9 (first) to 1 (last)
- Type (required Singletons first, then elective Singletons)
- Length (Year first, then Semester, then Term)
- Number of Available Sections; Least Available are processed first
- Internal Course ID

Note	To find the Internal Course ID, expand the Course Details of a Course in the Course Master (Student Management\Office \FS\BC\CM). Course ID appears in the upper right.

The order in which the Auto Scheduler processes the remaining individual student's arbitrary requests (Loop 2) is as follows:

- Scheduling Priority: 9 (first) to 1 (last)
- Type (required multiples first, then elective multiples)
- Length (Year first, then Semester, then Term)
- Number of Available Sections; Least Available are processed first
- Internal Course ID
- Percent of Fullness: the least full Section when multiple Sections fit

Using Scheduling Priority: Priority settings are designed to be tie-breakers between similar Courses that have the *same* length and number of Sections – for example, Required Algebra II and Required Physical Science, or Elective Ceramic Arts and Elective Photography. Scheduling Priority should be used sparingly.

- Required Courses with the default priority of zero are treated as Priority 5 by the Auto Scheduler. You will not see the value of 5 in the Scheduling Priority field on the Course, but the program logic analyzes the Required Courses with a Scheduling Priority of 0 as if it had a Scheduling Priority of 5 when it makes its determination of which Course to schedule next for the student.

- Elective Courses with the default priority of zero are treated as Priority 0.

- Setting a Required Course to a setting lower than Priority 5, but more than zero, will make it schedule after other required Courses in its Loop, but before Electives that haven't been changed from the default setting.

- Setting an Elective Course to a higher setting will cause it to schedule before other Electives in its Loop. Setting it to a Priority 6 or higher will make this Elective schedule before Required Courses which are at the default priority *if* the Courses are of the same length and number of Sections.

Note	A Course with a lower Scheduling Priority (for example, 4) may still schedule before a Course with a higher Scheduling Priority (for example, 8) if the Course with the lower Priority setting has fewer Sections, causing it to become an Imperative for a student.

Percent of Fullness: the scheduler checks this value in the Sections to determine the order of the remaining Courses to schedule.

- For Courses with the same Scheduling Priority it determines the Course to schedule based upon which Course has the largest difference in percent of fullness amongst its own Sections. Fullness is the number of students scheduled against maximum for the Section. This is done to accomplish Section balancing.

Example	Course A has 4 Sections, with all 4 Sections about 30% filled, Course B has 2 Sections where one Section is 10% filled, and the other is 70% filled. In this case, it will place the student in the Section of Course B which is 10% filled. If Course A has 4 Sections, with percent filled ranging from 10% to 70%, and Course B has 2 Sections both 10% filled, it will place the student in the Section of Course A which is 10% filled.

Note	If the **Schedule Required Courses first, then Elective Courses** option is selected in the Auto Scheduler **Scheduling Options**, then all Required Courses are scheduled before Elective Courses. All required Singletons and multiple Courses are processed first, followed by elective Singletons and multiple class Courses.
	You may potentially receive a greater number of conflicts with this setting because a Required Course was arbitrarily placed in the schedule which caused students to not get their Elective Singletons or multiple class Courses.

Auto Scheduling of Prerequisites

Prerequisites are Courses that have relationship to one another that are defined in the Course Master. A prerequisite for a Course requires that one or more Courses be taken prior to (or at the same time as) the specified Course. The Pre-Requisite Verification Report (Student Management\Office\FS\RP\RE\PR) should be run prior to running the Auto Scheduler to ensure that a student has fulfilled the prerequisites for the Courses they have requested and to remove the requests for which they have not met the prerequisites. The Auto Scheduler will still schedule requests for students if the prerequisites taken in a prior year have not been met.

If a prerequisite requirement has been set up so that it is allowed to be taken concurrently (in the same year), the Auto Scheduler will honor the order in which the Courses should be taken. The auto scheduler only looks at prerequisites if you are requesting a Course and its prerequisite together.

a. It will look at both the Course request and its prerequisite and determine if it can schedule the prerequisite in a term prior to the other Course.

b. It will first attempt to schedule the prerequisite and then attempt to schedule the other Course.

c. If the prerequisite cannot be scheduled prior to the other Course because it is not offered first, the other Course will not be scheduled.

If the prerequisite cannot be scheduled first due to conflicts (the Course is available, but conflicts with another Course), the other Course will still be scheduled and it would be your responsibility to clean this up and make sure the prerequisite gets scheduled first manually.

Auto Scheduling of Co-requisites
Co-requisites are Courses that have relationships to one another that are defined in the Course Master. They define Courses that should be taken with specific requirements, either in the same or different terms, by the same or different teachers and in the same or different periods. Co-requisite Courses must be of the same length.

a. If the Course is a year in length, then the only option is to have the same teacher for the opposing Course.

b. If the Course is not a year in length, then the user has the options of having the same period and same teacher and the option to put constraints on the terms the classes can meet. These term or semester constraints vary from none, same term, same semester-different terms, same semester-any term for term Courses to same semester, different semesters or any semester for semester Courses.

c. For Courses that are co-requisites, there is the further option at the class level to actually link Sections together. This allows forcing a student scheduled in the Period 1 Section first semester to be scheduled into the Period 1 Section of the other Course second semester.

The Auto Scheduler will then honor the constraints put on the Course Section.

Note	The Auto Scheduler honors the options Force Co-Requisites to Schedule All or Nothing and Only for flagged Co-Requisites, if they are selected in Scheduling Options. Therefore, not all co-requisites in a grouping may be scheduled for a student even if there is an available class that meets the co-requisite requirements and has open seats.

The Scheduling Run Student Conflict Detail Report indicates when Courses have co-requisites by placing a "c" in front of the Sections term and putting "+" signs in the days meet when a Section was not available due to co-requisite constraints. If the "c" is followed by a "1" the class is available for scheduling. If the class has a "c" by itself, the Section is not available for scheduling. This could be for various reasons.

Auto Scheduling – Scheduling Teams

Team scheduling as described below is when both students and classes are assigned Scheduling Teams. The purpose of this is to group students into certain Sections of Courses based on the student's assigned Scheduling Team. When using Scheduling Teams, it is most effective when all students and classes have a team assigned.

When team scheduling is used, the auto scheduler processes the Courses and Sections differently depending on the Course's Team Scheduling Priority and the student's assigned team.

Note	If the student is not assigned to a team, it processes that student as if team scheduling is turned off. Likewise, if a Section is not assigned to a team, it is available to any student regardless of the student's team.

   a. If the Team Scheduling Priority on the Course is set to 0 = No Priority, the Course and Sections are processed as if team scheduling is turned off.

   b. If the Team Scheduling Priority is set to 9 = Mandatory, only Sections whose team matches the students or have no team assigned are considered. This can actually create Singletons out of Courses that have multiple Sections.

c. If the Team Scheduling Priority is set to 6 = If At All Possible, the scheduler inflates the non-matching Section counts (internally, during the processing) to one less than the class's Maximum Students unless the count is already at or above the maximum and then it leaves it alone. For matching Sections, it decreases the current counts by 50%. There is a chance that the student could get into any Section whether the teams match or not, but there is more chance that the student will get into a Section that either has the same team or no team.

d. If the Team Scheduling Priority is set to 3 = If Feasible, the scheduler inflates the non-matching Section's counts to the Section's Optimum Students size unless the count is already at or above that value. For matching Sections, it decreases the current counts by 25%.

The scheduler first processes classes that are the least full. Adjustments are to make classes less or more full based on the Team Scheduling Priority of the Course and the teams assigned to the student and the classes. In both of the cases where the counts are changed, the scheduler reacts positively toward teams by attempting to balance Sections of a Course for percentage of fullness.

<u>Auto Scheduling - Scheduling Categories Assigned to the Student</u>
When the Type of Scheduling Category is Category is assigned to the Student in Entity Year Options (Student Management\Office\FS Setup\CF\SE), Scheduling Categories are a similar concept to Scheduling Teams, in that you can assign students and class Sections one or more Scheduling Categories. One or more of the Scheduling Categories must match before the student can be scheduled into the Section.

A student with one or more Scheduling Categories is placed either into a Section with a matching Scheduling Category or a Section with no Category. If all Sections have Categories and none match the student's Category, the student is not scheduled into any Section.

A student with no Scheduling Category is not placed into a Section with a Category unless the option Allow Student with No Category to be Assigned is enabled on the Section.

Auto Scheduling - Scheduling Categories Assigned to the Student's Course Request

When the Type of Scheduling Category is Category is assigned the Student's Course Request in Entity Year Options (Student Management\Office\FS Setup\CF\SE), Scheduling Categories will work similarly to Scheduling Teams in that it will give priority to the student's Course Requests with a Scheduling Category that matches the Scheduling Category on a class Section. Additionally, when this Scheduling Type is selected, the Auto Scheduler allows you to select Scheduling Category as a Student Attribute to use to balance classes.

Frequently Asked Questions about the Auto Scheduler logic:

Q: *Does the schedule process students alphabetically?*

A: No. The system will create a list of students that will be processed based on the ranges selected. It will then process all students within the first graduation year selected. After processing the entire grade level it will then begin scheduling students with the next graduation year. In a high school setting this typically means seniors will be processed first followed by juniors and so on.

Q: *How many times can I run the Auto Schedule?*

A: Imperative and Pseudo scheduling runs, which simulate the scheduling process, may be run as many times as needed. The Actual scheduling run should be run only once to lock in student schedules. If the scheduling run needs to be processed again, the requests must first be unscheduled.

Q: *Can a scheduling run be undone?*

A: An Actual scheduling run can be unscheduled. The Unschedule Student Classes Utility (Student Management\Office\FS\SS Setup\UT\US) exists for this purpose.

Q: *When I try to run the Auto Scheduler, I get a message, "The Scheduler is already running. Please wait for it to complete." It starts the run, but doesn't complete it. How do I get the message to go away?*

A: This can be caused when you try to abort a scheduling run after it has started. The person who started the last run will need to run the Mass Delete Auto-Scheduler Files process (Student Management\Office\FS\ SS\AS\MS). That person will be able to remove the scheduling run that did not complete.

Q: *Why is the scheduler not scheduling my zero hour classes?*

A: The scheduler will not place classes with a Scheduling Period of 00. You must either manually schedule students into these classes or change the Scheduling Period to a later Period in the day and leave the Display Period as 00.

Q: *What would cause students to not get scheduled into a Section when they have the same Scheduling Team as a Section with open seats*?

A: The scheduler will not place the class if it does not fit into the student's current schedule based on other requests or placed classes at the time the scheduler was run.

Appendix E – Using Future Scheduling Tools to Schedule the Current School Year

The Future Scheduling module contains functionality to create a Master Schedule, enter student requests and mass generate students' schedules using scheduling tools (such as Request Processing, Master Builder and Auto Scheduler) for the current or next school year. However, these tools are not available in the Current Scheduling module. Therefore, to schedule in the current school year using the scheduling tools, you must do so through the Future Scheduling module.

When scheduling for the current school year using these tools in the Future Scheduling module, you can schedule either by a specific term (Term 1, Semester 2, etc.) or for the entire school year.

Current Year Scheduling Scenarios

Scenario 1:
You want to run Year End processes at the end of the school year, but prior to performing an Actual scheduling run (when schedules are generated). After Year End is processed you want to schedule one or more terms (or the entire year) in what has now become the current school year.

Scenario 2:
You scheduled one or more terms prior to running Year End processes, but after Year End was processed you now need to re-schedule one or more terms in the current school year.

Scenario 3:
You would like to schedule only a single term (i.e. 1_{st} Term or 1_{st} Semester) of the next school year prior to Year End processing, knowing that there will be too many changes if additional terms are scheduled at this time. The additional terms will be scheduled after Year End has been processed, in the current school year (see scenario 2 above).

Scheduling in the Current Year

The steps below detail how to configure Scheduling Options to schedule in the Current Year, either for the entire year or a specific term.

To enable scheduling in the Current School Year for the entire year:

1. Go to Student Management\Office\FS Setup\CF\SE.

2. Click the arrow next to the current school year (indicated with an asterisk * next to it).

3. Click Edit Scheduling Options next to the Scheduling Options heading.

4. Select Allow Current Year Scheduling.

5. Click Save.

To enable scheduling in the Current School Year for a specific Term:

1. Go to Student Management\Office\FS Setup\CF\SE.

2. Click the arrow next to the current school year.

3. Click Edit Scheduling Options next to the Scheduling Options heading.

4. Select Schedule Multiple Times Per Year.

5. Select Semester or Term in Schedule By.

6. Select Allow Current Term/Semester Scheduling.

Note	If the current school year has already begun and you are scheduling a future Term or Semester for the current year, clear the Allow Current Term/Semester Scheduling check box. Selecting this check box can prevent students from using Online Arena Scheduling for a future term or semester of the current school year.

7. Click Save.

Future Scheduling Functionality for a Specific Term in the Current Year

The following Future Scheduling functionality has options to accommodate scheduling in the Current Year for a specific term:

- The Initialize Class Meet Details Utility (Student Management\Office\ FS\BM Setup\UT\IC) has an option **Terms To Process.**

- Course Availability Lists (Student Management\Office\FS\RP\RE\PC) can be printed for a specific control set(s).

- Request entry can be performed for a specific control set(s).

- Most reports have a **Terms To Print, Term To Use** or **Control Sets** option.

- The **Scheduling Lock Options** (Student Management\Office\FS Setup\CF\SL) are Term/Semester specific.

- The Auto Scheduler Generate Student Schedules (Student Management \Office\FS\SS\AS\GS) is run for a specific Term or Semester, based on the **Time Period To Use.** This is selected by clicking on the hyperlink under the **Future Scheduling – FS** heading (ex: **2016-17, Terms: 03 to 04 ****).

- Requests will only be considered for scheduling if their terms fall within the Term/Semester being scheduled. Therefore, if requests exist for year-long Courses, they will not be scheduled by the system when scheduling a specific Term or Semester. Also, if requests exist for Semester long Courses, they will not be scheduled by the system when scheduling a specific Term that falls within that Semester.

Example	Semester 2 (of a 4 Term/2 Sem school) is being scheduled. There are requests for S2 and year-long Courses for a student. Only the S2 Course Requests will be considered for scheduling. The year-long Course Requests will not be considered for scheduling. The student will not be scheduled into subsets of the year long Course, even if the subset exists.

- A student's classes can be unscheduled using the Unschedule Student Classes Utility. There is an option to specify the Terms To Process. Classes will only be unscheduled if their terms fall within the term being unscheduled.

Example	Term 4 (of a 4 Term/2 Sem school) is being unscheduled. A student is scheduled in a Course with a length of year, but is enrolled in just the T4 subset of the year long Course. When Term 4 is unscheduled, the Course will be unscheduled for the student. The student is also enrolled in another year long Course but in all 4 terms. When Term 4 is unscheduled, the system will not unschedule this year-long Course because the terms exceed the terms being unscheduled.

- A student's classes cannot be unscheduled for a specific Term or Semester if there are grades present for that class.

Future Scheduling Functionality for Family Access Request Entry in the Current Year

The following Future Scheduling school year information applies to request entry in Family Access to accommodate scheduling in the Current Year:

- The Course Availability List (Student Management\Office\FS\RP\RE\PC) is created just as it would be for the next school year, except the School Year field is equal to the current year. However, after creating the Course Availability List, it can then be printed for a specific control set(s).

- Entity setup for Students and/or Guardians is done through Skyward's School Management System (Student Management\Families\FM Setup\CF\EC\Course Requests) for the current school year. Options are listed by Year and specific Sem/Term.

- The display in Family Access for Students and Guardians for Course Requests is listed by school year (e.g. 2016-2017 Courses) and a specific Term or Semester (e.g. Semester 2).

Future Scheduling Functionality for Online Arena Scheduling in the Current Year

The following Future Scheduling school year information applies to Online Arena Scheduling to accommodate scheduling in the Current Year:

- Entity setup for Students and/or Guardians is done through Skyward's School Management System (Student Management\Families\FM Setup\CF\EC\Arena Scheduling) for the current school year. Options are listed by Year and specific Sem/Term.

- The display in Family Access for Students and Guardians for Arena Scheduling is listed by school year (e.g. 2016-2017 Courses) and a specific Term or Semester (e.g. Semester 2). When **Schedule Multiple Times Per Year** is selected in **Scheduling Options** (Student Management\Office\FS Setup\CF\SE), **Allow Current Year Scheduling** must not also be selected.

Appendix F – Troubleshooting Online Arena Scheduling Setup

The following problems and solutions can be used to ensure you have followed the configuration and setup required for both Skyward's School Management System and Family Access if issues are encountered once the functionality has been deployed.

Problem:
A student and/or guardian cannot gain access to Family Access.

Solution:
Confirm that the following conditions are true (Student Management\Students\ST \PR\General\Web Access):

- Student and/or guardian is assigned a Password.

- Student and/or guardian has the option Allow Web Access selected.

- The student's Graduated flag (Student Management\Students\ST\PR \General\Profile) is set to No. If it is set to Yes and the Family Access District Display Settings (Student Management\Families\FM Setup\CF\DD) option Display Non-Graduated Students Only is selected, the student will not be able to sign in.

Problem:
A student and/or guardian can only *view* their schedule in Family Access Online Arena Scheduling (there are no Add or Remove buttons).

Solution:
Confirm that the following conditions are true:

- In Family Access, the Allow Add/Remove of Courses option is enabled.

- Student's Scheduling Status equals Open (not Waiting, Approved or Locked).

- Student's Grade Level equals the Grade Level for an Online Scheduling Time Period group.

- Student's Alpha Key falls within the Low and High defined for the Online Scheduling Time Period group.

- The current date falls within the Start Date and End Date defined for the Online Scheduling Time Period group.

Problem:
A student and/or guardian is not able to submit a schedule on the Submit Classes **tab in Online Arena Scheduling:**

Solution:
Confirm that the following conditions are configured correctly:

- Student's Scheduling Status equals Open (not Waiting, Approved or Locked).

- Online Arena Scheduling Time Periods (Student Management\Office\FS\RP Setup\CF\OS) are created for the student's grade level and the Date and Time range is set correctly for the student's grade level. Also, ensure that the Class Request Maximum is set appropriately.

Problem:
Courses, or certain Courses, do not appear on the Available Classes list in Online Arena Scheduling.

Solution:
Confirm that the following conditions are true:

- Applicable Courses in the Course Master have the Available To Online Arena Scheduling check box selected.

- The student's grade level falls within the Grade Ranges on the Course Master.

Note	If the option Only list class sections for courses student requested is enabled in Family Access, Entity Configuration for Available Classes, any Course that was requested for the student will be available.

- The Course was requested by the student (if the option Only list class sections for courses student requested is enabled in Family Access, Entity Configuration for Available Classes.)

- A Course Section has a Class Meeting Record.

Problem:
You are using Arena Scheduling for a future semester or term of the *current* school year and students get a message that Arena Scheduling is unavailable.

Solution:
Confirm that the following conditions are true:

- Schedule Multiple Times Per Year and either Semester or Term is selected for the current year in Scheduling Options (Student Management\ Office\CS Setup\CF\SE).

- Allow Current Semester (or Term) Scheduling is not selected in Scheduling Options.

- The future Semester or Term is enabled in Family Access, Entity Configuration for Arena Scheduling (Student Management\Families\FM Setup\CF\EC).

Appendix G – Interpreting the Results of the Student Conflict Detail Report

When the Auto Scheduler generates a scheduling run, details and reports based on the outcome of the scheduling run are generated. You can use these details and reports to find out which students and Courses have conflicts. Figure 7 shows the Student Conflict Report.

Figure 7 - Student Conflict Detail Report based on the Imperative scheduling run with the Section/Terms Days Report Format Selected

The codes that appear in Column T of the Student Conflict Report (Figure 7) specify how the Course was scheduled. Table 3 explains the specific values that appear in this column.

Symbol in Column T	Description
(*)	Course could not be scheduled. If other possible Sections are shown, those sections conflict with other scheduled Sections. If other possible Sections are not shown, this Course could not be scheduled for any reason other than a conflict with another assigned Course, including Scheduling Team or Scheduling Category Codes. Other codes may be printed for that information.
M	Course was manually placed into the student's schedule by the user. The Course was not scheduled by the system.
I	Course was scheduled as an imperative because it is a single-Section Course or a derived Singleton.
i	Course was scheduled as an imperative after another Course was arbitrarily scheduled, forcing this Course to have only one possible Section.
A, O, P, Q, o, p, q	The scheduling software made an arbitrary decision in its attempt to build a schedule. It first attempts to balance the number of students between Sections at the point the student is being scheduled.

Table 3 - Description of values in Column T of the Student Conflict Detail Report

The codes that appear in Column F denote special Scheduling Types for the Course. Table 4 explains the specific values that appear in this column.

Symbol in Column F	Description
M	Course has a Schedule Type of Manually Scheduled.
D	Course has a Schedule Type of Dropped Course.

Symbol in Column F	Description
G	Course is part of a Lock Group. While a Course may appear to be able to be scheduled, if other Courses in the Lock group cannot be scheduled into a different term, the Course is "conflicted out." You may then look into the other Courses in the Lock Group to determine how they were scheduled or why they had conflicts.

Table 4 - Description of values in Column F of the Student Conflict Detail Report

Conflict Codes print for any Course which the software is not able to schedule. For Courses with no conflicts, the days of the week or day rotation numbers that the class is scheduled on appear beneath the period assigned column. Table 5 explains the specific values that appear in this column.

Conflict Codes	Description
-----	Another period for which the Course has a Section offered. These dashes print for all of the Courses, whether they have conflicts or not. If the Section does not meet every day, dashes appear only for days when the Course meets. Blank spaces appear for days when the Course does not meet.
+++++	Student has been blocked from being scheduled into a Section for a variety of reasons, including Section filled, prerequisite, co-requisite or group block. A single letter appears to the left of the Class Control Set value to indicate the specific reason the student has been blocked.
f	Section is full. If the day pattern also prints, the student is scheduled into the Section. If plus symbols appear (+), the student was not scheduled into the Section because it was full.
c	Course has a co-requisite (c) and the class is not available to be scheduled based on the co-requisite rules. If a student is blocked (+++++) from being scheduled, it is because its co-requisite could not be scheduled.
c1	Course has a co-requisite (c) and the class is available to be scheduled (1) based on the rules of the co-requisite.

Conflict Codes	Description
p	Course has a prerequisite (p) requirement and the class is not available to be scheduled based on the prerequisite rules. This could mean that the classes can't be taken concurrently, or it is possible that the prerequisite class has been scheduled in the last term of the year so there is no term available to schedule the subsequent/dependent class.
p1	Course has a prerequisite (p) and the class is available to be scheduled (1) based on the rules of the prerequisite.
b	Course has both (b) a co-requisite and a prerequisite requirement and is not available to be scheduled based on the rules of the co-requisite and prerequisite requirement.
b1	Course has both (b) a co-requisite and a prerequisite requirement and the class is available to be scheduled (1) based on the rules of the co-requisite and prerequisite requirement.
g	Course is part of a Lock Group that should be scheduled in opposite terms.

Table 5 - Descriptions of the Conflict Codes used in the Student Conflict Detail Report

When evaluating this report for conflicts, review student schedules on the report for conflicts that exist for individual students.

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