

Scheduling Module 6a

Rotations, Pattern Library and Pattern Sets

Jan. 2016 v1.2







Version History

Version	Date	Description
1.0	Feb. 10, 2015	Initial draft
1.1	12 Aug. 2015	Added Rotations, Patterns and Pattern Sets from SM3 created new doc. titled SM6a & SM6b
1.2	17 Jan. 2016	Divided SM6 into SM6a & SM6b (new doc.)

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1.0 Rotations

A rotated master schedule displays the sections of courses, in the order they actually happen on a given day.

There are two ways schools schedulers build master schedules:

- The most common way is as a Flat schedule. This is very typical for secondary schools and is a direct reflection of the `scheduling board` used. Four (or 8) periods across the top, with various ways to indicated if the section is Full Year or Semester. After the schedule is complete, some kind of rotation is applied. In BCeSIS, that is through the use of Tumble Patterns. No secondary schools create a `scheduling board` with all of the rotations on it; it is far too complex.
- 2. The second way is a Rotated schedule. This is often done at the middle school level, again it is usually reflected on a `scheduling board`, but as there is more limited choices at a middle school the complexity of building it this way is reduced.

MyEducation BC has the ability to **build** a Flat schedule and then rotate it, after it is built. The master schedule, student schedules and attendance are all displayed, based on the `rotation` created.

Note: Schools that have double periods and take attendance in both periods must create a rotation.

Consideration should be given to the decision to rotate a schedule or not, as it will impact all users in these areas. The following section shows the results, views and discusses the implications of a using a rotated schedule.

For example, assume a school wants to rotate the schedule from a 2-day x 6-period matrix to a 6-day x 7-period matrix, as shown below.





				Days			
Deriede		1	2	3	4	5	6
	1						
	2						
	3						
Penous	4						
	5						
	6						
	7						

_

Master schedule, showing flat un-rotated and rotated schedule expressions:

Pages	Scho	ol	Studen	t S	itaff	Attendance	Conduct	Grad	es /	Assessi	men	t Schedule	Glo	bal	Tools	Adı	min
Options		Rej	ports	Help									T		a→z	հ 🗧	🗆
Master So	chedul	е											1		1		
Sections								0 of 3	9 selecte	ed 🥖			•		ł	Custor	Selection
Details			Course	Flavour	SecNo	Description			Teacher		Term	ScheduleTerm > Code	Unrotate	d Schedu	ule Sched	ule	
Teachers			MAF11-01		01	ART FOUNDATIONS 1	1		Konrad, H	Helmuth	S1	S1	1(1-2)		1(1,5-6) 2-3(2) 4	(3) 5(4)
Roster			MAF12-01		01	ART FOUNDATIONS 1	2		Konrad, H	Helmuth	S1	S1	1(1-2)		1(1,5-6) 2-3(2) 4	(3) 5(4)
Matrix Vie	w		MAT11-01		01	AUTOMOTIVE TECHN	OLOGY 11		Santorell	i, Marty	S1	S1	3(1-2)		1(3) 2(4) 3(4-8) 4	(1) 5(2)
Classes			MAT11-02		02	AUTOMOTIVE TECHN	OLOGY 11		Santorell	i, Marty	S2	S2	3(1-2)		1(3) 2(4) 3(4-6) 4	(1) 5(2)
Class Size			MAT12-01		01	AUTOMOTIVE TECHN	OLOGY 12		Santorell	i, Marty	S1	S1	3(1-2)		1(3) 2(4) 3(4-6) 4	(1) 5(2)
Summary			MAT12-02		02	AUTOMOTIVE TECHN	OLOGY 12		Santorell	i, Marty	S2	S2	3(1-2)		1(3) 2(4) 3(4-6) 4	(1) 5(2)
Schedules			MATD-12-01		01	AUTO TECH 12: ENGI	NE & DRIVE TRAIN	4	Santorell	i, Marty	S1	S1	3(1-2)		1(3) 2(4) 3(4-8) 4	(1) 5(2)

Student schedule corresponding to a flat un-rotated schedule:

	Day 1 -	Day 2 -
1-1	MCKT1A-01 PROFESIONAL COCK 1 11A Salazar, Gabrelle C145	MEI/FA10-05 ENGLISH FOUNDATIONS LEVEL 1 Saffry, Kazuko D245
2-2	MERFA10-05 ENGLISH FOUNDATIONS LEVEL 1 Saffay, Kazuko D246	MCKT-1A-01 PROFESSIONAL COOK 1 11A Salazar, Gabrielle C145
3-3	MGC-10-02 SCIENCE 10 Nomen, Cue B230	NEN-10-05 ENGLISH 10 Wark, Jamison B215
4-4	MEN-10-05 ENGLISH 10 Wask, Jamison B215	MSC-10-02 SCIENCE 10 Noreen, Cue B230
5-5 6-6		

Student schedule corresponding to a rotated schedule:





	1-1	2 - 2	3 -	4 -	5 -	6 -
1.1	MFMP-10-01 FOUNDATIONS OF MATH AND PRE-CALCULUS 10 Hodgetts, Elina 101	MMCB-10-01 MUSIC 10: CONCERT BAND Burdock, Huia 135	MSS-10-01 SOCIAL STUDIES 10 Fletcher, Danco 202	MFR-10-01 FRENCH 10 Vining, Savanta 211	MFMP-10-01 FOUNDATIONS OF MATH AND PRE-CALCULUS 10 Hodgets, Eina 101	MFMP-10-01 FOUNDATIONS OF MATH AND PRE-CALCULUS 10 Hodgetts, Elina 101
2-2	MEN-10-01 ENGLISH 10 Packard, Iona 203	MFMP-10-01 FOUNDATIONS OF MATH AND PRE-CALCULUS 10 Hodgetts, Elina 101	MFR-10-01 FRENCH 10 Vining, Savanta 211	MSS-10-01 SOCIAL STUDIES 10 Fietcher, Danco 202	MEN-10-01 ENGLISH 10 Packard, Iona 203	MMCB-10-01 MUSIC 10: CONCERT BAND Burdock, Huis 135
3-3	MEN-10-01 ENGLISH 10 Packard, Iona 203	MFMP-10-01 FOUNDATIONS OF MATH AND PRE-CALCULUS 10 Hodgetts, Elina 101	MFR-10-01 FRENCH 10 Vining, Savanta 211	MSS-10-01 SOCIAL STUDIES 10 Fletcher, Danco 202	MSS-10-01 SOCIAL STUDIES 10 Fletcher, Danco 202	MSS-r0-01 SOCIAL STUDIES 10 Fletcher, Danco 202
4.4	MSS-10-01 SOCIAL STUDIES 10 Fletcher, Danco 202	MFR-10-01 FRENCH 10 Vining, Savanta 211	MPMP-10-01 FOUNDATIONS OF MATH AND PRE-CALCULUS 10 Hodgetts. Elina 101	MMCB-10-01 MUSIC 10: CONCERT BAND Burdock, Huia 135	MFR-10-01 FRENCH 10 Vining, Savanta 211	MFR-10-01 FRENCH 10 Vining, Savanta 211
5-5	MFR-10-01 FRENCH 10 Vining, Savanta 211	MSS-10-01 SOCIAL STUDIES 10 Fletcher: Danco 202	MEN-10-01 ENGLISH 10 Packard, Iona 203	MFMP-10-01 FOUNDATIONS OF MATH AND PRE-CALCULUS 10 Hodgetts, Elina 101		
6-6 7-7						

Class Office:

The periods displayed in this view reflect the time slots of the day in a flat un-rotated schedule. If the schedule had been rotated, the periods displayed reflect the actual order of the rotated blocks on that given date.

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Daily Roster			Name	Pupil #	Grade	Daily Code	P1	P2	P3	P4	P5	CHOIR	SHIFT	Phoenix	GISPA	College	Career	OTHER	HRM	temp	
			Addison, Jackie	482401	11	>	>														
Daily Batch			Addley, Caitlin	1360128	11	>	>														
Daily History	,		Adds, Jagrup	1464348	12	>	×														L
Daily Summ	arv		Adema, Cory	434002	12	>	×														1
			Adkins, Delhia	432728	09	>	×														L
Class Offic	e		Aikman, Violet	510341	10	>	>														1
Class Trend	ls		Akbar, Ferris	216800	11		>														1
Class Histo	ry		Aldrich, Eldon	429217	09	>	×														1
		_																			1

1.1 Create a Rotation:

- 1. Log on to the Build view.
- 2. Click the Scenario tab.
- 3. Select the scenario you want to rotate, and click the Rotations side-tab.
- 4. On the **Options** menu, click **Add**. The New Schedule Rotation page appears.
- 5. Type the rotation ID and a description.
- 6. Type the rotated dimensions. This creates the proper size matrix for you to identify the rotation map.



- Select the **Differs by term** checkbox if you want to define a different rotation for each schedule term. If you select the checkbox, the **Select Term** drop-down appears. Select the first term you want to define a map for.
- 8. On the original schedule matrix on the left-hand side of the page, select a period and day. Then, on the rotated schedule matrix on the right-hand side of the page, select the periods and days in which you want that period to meet. Repeat this process for all periods and days.

If you select the **Differs by term** checkbox, define the rotation map for each non-overlapping term that spans the entire school year. For example, you might define rotations for Semester 1, Quarter 3 and Quarter 4. To define rotations that differ by term, select a term at the **Select Term** field each time you finish a map for a term.

Note: Switching back and forth between terms does not delete the rotations you are creating; you cannot save the rotation until all rotations have been identified for all terms in the **Select Terms** drop-down.

2.0 Patterns and Pattern Sets

In MyEducation BC, schedule patterns represent all of the different ways course sections meet in your school's schedule. Schedule patterns consist of a course's days per cycle and periods per cycle. Patterns are always built based on the Flat schedule.

To create a schedule pattern, you determine the size (days and period), style, and terms of the pattern. Depending on your selections, MyEducation BC provides you with a clickable Days/Period grid in which you click boxes to select the possible meeting times within the pattern:





In order to build your schedule, you need to map out all schedule patterns valid for your master schedule. Schedule patterns have different shapes. For example, courses meet on the all days in a period have a different shape, than courses that meet every other day in a period.

Note: To give you a head start, MyEducation BC can initialize your schedule patterns from your current year's master schedule. But, if you rotated your current schedule, it is better to create your schedule patterns from scratch.

Notes: To copy patterns from another school, click Copy Patterns on the Options menu. Select which school you want to copy from, and either select the Copy all checkbox, or select each pattern you want to copy.

You do not have to delete patterns from the Global tab. If you do not use them, the system will ignore them.

After you create all of your schedule patterns, group your patterns into pattern sets that apply to the different meeting shapes of courses. For example, you might create pattern sets named Full Year and another named Semester.

2.1 Pattern Library

Within the Pattern Library create all schedule patterns that could be assigned to courses in your school:

B CC	RITISH MUMBIA	My	Education BC	NorKam	Secondar	y 2014-2	2015		Change View	Select School	Set Pre	ferences	Log Off Build View
Pages	Scen	ario	Workspace	Courses	Student	Staff	Rooms	Rules	Global				
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Patterns													
Pattern Lib Details	orary			Criter	ia	Days = A	II; Periods = AII;	; PPC = All; Pat	ern Style = All; Pattern	Type = All;			
Pattern Sets	;			Cha	inge Filter								
Requests							0 of 14 sele	cted 🥔				Custo	m Selection
Logs		Pa	attern 🔺	Day	ys	Periods		PPC	TPY	PatternType			
Reference		1(A)	2		9		1	0/0 (0)				
		1(A-B)	2		9		2	0/0 (0)				
		1(B)	2		9		1	0/0 (0)				
		2(A)	2		9		1	0/0 (0)				
		2(A-B)	2		9		2	0/0 (0)				
		2(B)	2		9		1	0/0 (0)				
		3(A)	2		9		1	0/0 (0)				
		m 3(A-B)	2		9		2	0/0 (0)				

To create a Simple Schedule Pattern:

- 1. Log on to the Build view.
- 2. Click the Global tab.
- 3. Click the Pattern Library side-tab.
- 4. On the Options menu, click Add. The New Schedule Pattern page appears:



In the area at the top of the page, you define the shape of each pattern:

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BRITISH COLUMBIA MyEducationBC NorKam Secondary 2014-2015 A - 2 Day 4 Period Sched. Change View Select School Set Preferences Log Off Build View											
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Pattern Libra	Save	Cancel							Default Template 🗸		
► Details	Sched	lule pattern style	Simple	•			Schedule patte	rn type			
Pattern Sets	Days		2				Explode patter	n on save			
Requests	Period	is	9				By period				
Logs	Terms		Do not use	•			By day				
Reference											

5. At the Schedule pattern style drop-down, select one of the following:

Simple Use simple patterns to create patterns for courses that meet on a fixed schedule of days and periods during a cycle. For example, courses that meet first period every day.

Recommendation: This is the most common type of pattern that schools in BC will need to create.

Compound Use compound patterns to create patterns for courses that have complicated shapes, such as lab courses, by combining a simple pattern and a list of child patterns. For example, courses that meet second period every day, and an additional consecutive period once per week.

6. Type the number of Days and Periods in this schedule pattern to create a matrix for selecting the possible period/day combinations.

Note: If you have defined days and periods for this scenario, those values default in these fields. Do not change these values unless this scenario has multiple bell schedules.

7. To determine the schedule terms this pattern applies to, click the Terms drop-down to select one of the following:

Do not use: This pattern can be used for any schedule term. You should select this for most patterns. For example, the system can use an everyday pattern to schedule a first semester, second semester, or all-year course.

Same across terms: This pattern applies to a particular schedule term and has the same day and period across terms. Then, type the number of terms in the empty box. For example, assume a course meets every day during the first and third trimester. After you select this checkbox, type 2 in the empty box, and press TAB; two Term boxes appear above the mat- rix. Select the terms for which you want this pattern to apply.

Vary across terms: This pattern only applies to a particular schedule term and has different days and periods for different terms. Then, type the number of terms in the empty box. After you type the number of terms to which this pattern applies, the system displays that number of matrixes, for each of which you paint the appropriate patterns. (This option is not com- mon.)





Recommendation: This option can be used when a school wants the Build engine to determine if the sections should be FY or Semester. The following is an example:





In the above images there is a pattern of 1(A-B) for semester 1 but NO PATTERNS in semester 2

8. Click the Schedule pattern type drop-down to select one of the following (for information purposes only – not required)

Recommendation: This can be left blank for schools in BC:

Flat: A pattern that meets the same number of days, the same number of periods each cycle.

Free Form: A pattern that meets any days and periods without a clear shape.

Lab: A pattern that meets one flat block, with an extra period(s) on certain days.



9. You can explode Simple and Compound pattern types. Below Explode pattern on save, select the By period and By day checkboxes if you want the system to create every possible pattern based on the pattern you create in the grid after you click Save. Exploding patterns minimizes the number of patterns you actually define. Most schools need to define only a few patterns, and the system creates all versions of that pattern for them. For example, if you explode a simple pattern with two schedule days 1(A-B) by period, the system creates patterns for 2(A-B), 3(A-B), 4(A-B), and 5 (A-B).

Note: By period pushes the pattern down, and By day pushes the pattern across.

10. In the grid, click the boxes that represent the periods and days of this schedule pattern.

Note: To select all unselected or deselect all selected days in a column, click the Days column header. To select all unselected or deselect all selected periods in a row, click the Period row header.

11. Click Save

Create Compound Patterns

Compound Patterns do not need to be used; they help reduce the number of patterns created for courses with complicated shapes, especially lab courses. A compound pattern contains a primary (simple) pattern and a list of its child patterns. Each child pattern is automatically combined with the primary pattern for use by the scheduling engine.

To create compound patterns:

- When defining a schedule pattern, at the Schedule pattern style field, select Compound. The page displays the Days/Period grid for the Primary pattern, with the Compound patterns list at the bottom.
- 2. Click the boxes in the **Days/Periods** grid to define the **Primary** pattern, such as every day, Period 1.
- 3. Below the **Compound patterns** list box, click **Add** to add the child pattern of the primary pattern. A dialog box with the **Days/Period** grid for the child pattern appears. For example, this course needs to meet an additional period, two days per cycle:
- 4. You can explode the pattern By period or By day. For example, if you explode the pattern by day, the system creates a pattern in the Compound patterns list for every possibility of a course meeting two periods per week, with a day in between, such as 2(B-D), 2(C,E), and 2 (D,F).
- 5. Click **OK** to add this child pattern to the Compound patterns list at the bottom of the page.
- 6. Click **Combined view** for each child pattern to view the grid for that compound pattern:
- 7. Evaluate the pattern. If you want to delete a pattern, select the pattern in the **Compound patterns** list box, and click **Delete**.
- 8. Continue to click **Add** to add any additional possibilities for the extra periods for this pattern.





9. Click Save.

2.2 Pattern Sets

After you create schedule patterns, you need to group these patterns into pattern sets. Then you attach a pattern set to every course. This is the information that the scheduling engine uses to figure out how to schedule sections of courses.

Create course pattern sets for each of your different shapes of courses. For example, you might create pattern sets named Every day, Alt. days Regular, After School, etc. Then, associate each course with a proper pattern set, based on the shape of the course

Note: Do not delete pattern sets from the Global tab. If you never attach a course to a pattern set and never use it, the scheduling engine ignores it

To create a pattern set:

- 1. Log on to the Build view.
- 2. Click the **Global** tab.
- 3. Click the **Pattern Sets** side-tab.

Note: You can also create a pattern set on the Pattern Library side-tab. Select the patterns you want to group into a pattern set. Then, on the Options menu, click Add to Pattern Set.

- 4. On the **Options** menu, click **Add**. The **New Schedule Pattern Set** page appears.
- 5. Define the name of the pattern set, such as Alt. days.
- 6. Click Save.
- 7. On the Pattern Sets side-tab, click Patterns.
- 8. On the **Options** menu, click **Add**. The Schedule Pattern dialog box appears.





9. Select the patterns you want to add to the pattern set, and click OK. These patterns become part of the pattern set.

Second Second	RITISH XUMBIA	Myl	Education <mark>BC</mark>	NorKam S B - 1 Day 8 Per	econdary	2014-2	2015		Change V	/iew Select So	:hool	Set Pre	ference	es Log Build Vie	Off 9W
Pages	Scena	ario	Workspace	Courses	Student	Staff	Rooms	Rules	Global						
Options		Repor	ts Help							T		a-z	th		×
Pattern S	ets														
Pattern Libra	ary						0 of 6 sele	ected 🥖					Schoo	ol Pattern	Sets
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Details		E Alt	t. days - Aft.Sch.						School						
Patterns		E Alt	t. days - Regular						School						
Requests		Ev	ery day & Alt. days						School						
Lons		Ev Ev	very day - Aft. Sch.						School						
		🔄 Ev	ery day - Regular						School						
Reference		🗐 fy	& sem						School						

10. Continue creating Pattern Sets until you have all combinations your school requires.



3.0 Appendix A: Determining a School's Rotation

The following section outlines a process for determining the number of Rotated Days required for a school. There is no exact "one way to do this," but the following should be of assistance as you work with individual schools.

- 1. Write down all the unique tumbles/rotations/bell schedules currently at the school. This information comes from a variety of places (and should be looked at and integrated together):
 - BCeSIS Tumble patterns screen, Attendance Calendar;
 - MyEd Bell schedules currently in use;
 - A schools website Most schools post their 'block rotation';
 - Discussions with the school.

Using all of this information, the following table was created:

Mon1	Mon2	Mon3	Mon4
13	13	13	13
1	2	3	4
2	1	4	3
3	4	1	2
4	3	2	1
Tues1	Tues2	Tues3	Tues4
12	12	12	12
14	14	14	14
1	2	3	4
2	1	4	3
3	4	1	2
4	3	2	1
9	9	9	9
Wed1	Wed2	Wed3	Wed4
13	13	13	13
1	2	3	4
2	1	4	3
3	4	1	2
4	3	2	1
Thurs1	Thurs2	Thurs3	Thurs4
12	12	12	12
1	2	3	4
2	1	4	3
3	4	1	2
4	3	2	1
Fri1	Fri2	Fri3	Fri4
14	14	14	14
1	2	3	4
2	1	4	3
3	4	1	2
4	2	2	1



 Analyze the information to determine any patterns. In the above example it was determined that during a given week this school does the following and information was color coded:

Week 1 - Mon1, Tues2, Wed3, Thurs4, Fri1 < YELLOW > Week 2 – Mon2, Tues3, Wed4, Thurs1, Fri2 < RED > Week 3 – Mon3, Tues4, Wed1, Thurs2, Fri3 < GREEN > Week 4 – Mon4, Tues1, Wed2, Thurs3, Fri4 < GREY >

- 3. Determine the 'core' periods used during the day to schedule sections. This information was gathered by looking at the school's website and seeing that they outline four time slots during the day; then reviewing the existing Master Schedule in MyEd (or BCeSIS) to determine in which periods Math, English, Science and Social Studies are scheduled (these four courses at all grade levels tend to be in what schools refer to as regular periods). Sections scheduled in the upper periods 5 -14, were then reviewed to double check the 'core' periods.
- 4. Write down all the unique orders of these 'core' periods and place non-core periods at the end, as in the example below:

1	2	3	4
2	1	4	3
3	4	1	2
4	3	2	1
9	9	9	9
12	12	12	12
13	13	13	13
14	14	14	14

This school had four unique rotations of the 'core' periods

5. This information was then used to determine the school needs to Rotate the schedule out to 4 Days:

Day 1 Rotation	Day 2 Rotation	Day 3 Rotation	Day 4 Rotation
1	2	3	4
2	1	4	3
3	4	1	2
4	3	2	1
9	9	9	9
12	12	12	12
13	13	13	13
14	14	14	14



6. In MyEducation BC, Build view> Scenario top tab > Rotations side tab > the following Rotation would be created:



Note: This scenario was created with a Build year context of the current year (due to setup requirements). The dates should in fact be for the coming school year.

7. This school would then require 1 Bell Schedule, which could be created in August:

ell Period number	Bell Period Identifier	Period Name	Start Time	Duration (Minutes)
1	1	1	8:40 AM	80
2	2	2	10:05 AM	80
3	3	3	11:40 AM	75
4	4	4	1:40 PM	80
9	9	9	3:00 PM	60
12	12	12	3:00 PM	60
13	13	13	3:00 PM	60
14	14	14	3:00 PM	60

There would be additional options for the times of Bell Period Numbers 9-14 that could be explored in August.



8. The final step would be to create the School's Calendar, which would be done in the August timeframe. Below is a representation of the Calendar and how it would look:

Date:	Day
Mon Sept. 7	Labour Day
Tues Sept. 8	2
Wed Sept. 9	3
Thur Sept. 10	4
Fri Sept. 11	1
Mon Sept. 14	2
Tues Sept. 15	3
Wed Sept. 16	4
Thur Sept. 17	1
Fri Sept. 18	2
Mon Sept. 21	3
Tues Sept. 22	4
Wed Sept. 23	1
Thur Sept. 24	2
Fri Sept. 25	3
Mon Sept. 28	4
Tues Sept. 29	1
Wed Sept. 30	2
Thur Oct. 1	3
Fri Oct. 2	4
Mon Sept. 28	1
Tues Sept. 29	2
Wed Sept. 30	3
Thur Oct. 1	4
Fri Oct. 2	1



4.0 Appendix B: Full Year and Semester Option

This section outlines the setup steps required to have the Build engine determine if sections of a course should be Full Year or Semesters. It is not required if you are going to manually do this.

4.1.1 Structure

The structure of a scenario must contain both Full Year terms and Semester terms:

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B CO	RITISH LUMBIA Mył	Education <mark>BC</mark>	South Kar SM6-Complet	mloops Se	econda	ry 2015-2	016			Change View Select School Set Preferences Log Off Build View
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Details								0 of 3	selected 🥔	Custom Selection
Preference	S Code								Name	
Torme	FY								FY	
Details	U S1								S1	
Davs	52								52	
Periods										
Rotations										
Bell Sched	lules									

4.1.2 Patterns

Patterns need to be created and added to the Pattern Library that represent the periods Full Year or Semester sections could possible meet.

From the Global > Patterns > Options > Add, create this pattern:

BRITI:	SH BIA MyH	ducationBC	South Kar	nloops Se	econdar	y 2015-2	016					Change View	Select School Se	t Preferences Log Off Build View
Pages Sc	enario	Workspace	Courses	Student	Staff	Rooms	Rules	Global		_1				
Options	Reports	Help												7
Patterns :: I	New Sch	edule Pat	tern											
Pattern	Save C	ancel											Default Template	•
Library > Details	Schedule	pattern style	Simple	T					Schedule pat	ttern type				
Pattern Sets	Days		2						Explode path	ern on save	•			
Requests 2	Terms		8 Vary across terms	▼ 2					By period By day					
Logs	ſ													
Reference		3		4				Terms			ß			
									Days					
									A	в				
								2						
								3						
							Peri	ods 4						
								5						
								6						
								7						
								8						
	Save C	ancel												



Repeat for all possible periods in the first semester as in the screen capture below.

Note the asterisk in point number 2. This indicates the pattern is varying across terms.

Point number three indicates in which of the 2 semesters, these periods are represented (10 indicates 1st semester).

🗾 🍡 MyEdu	ucation BC: Glob	al ×		-		100	-	-	And and the other	4.84		
← → C [] ts1.myeducation.gov.bc.ca/aspen/patternList.do												
B CC	RITISH DLUMBIA My	Education <mark>BC</mark>	South Kar SM6-Complet	nloops Se º	cond	ary 2015-20	016				Change View	
Pages	Scenario	Workspace	Courses	Student	Staff	Rooms	Rules	Global				
Options	Reports	Help										
Patterns												
Pattern Library Criteria Days = All; Periods = All; PPC = All; Pattern Style = All; Pattern Type = All;												
Details						Change Filter]					
Pattern Se	ets		2)					0 of	f 4 selected 🥖	3		
Requests	Patte	m	Da	iys		Periods			PPC	ТРҮ	PatternType	
Logs	1(A-E	i) *	2			8			2	1/2 (10)		
Reference	2(A-E)*	2			8			2	1/2 (10)		
	3(A-E	() *	2			8			2	1/2 (10)		
	4(A-E	07	2			8			2	1/2 (10)		

Next create another set of patterns that represent the second semester:

This time select the small table representing the second semester, as has been done in number 3 below.



Repeat for all possible periods in the second semester as in the screen capture below.





B CO	RITISH DLUMBIA My	Education <mark>BC</mark>	South Ka	South Kamloops Secondary 2015-2016 SM6-Complete								
Pages	Scenario	Workspace	Courses	Student	Staff	Rooms	Rules	Global				
Options	Reports	s Help										
Patterns												
Pattern Library						Criteria		Days = All; Perio	ds = All; PPC = All; Patte	em Style = All; Pattern Type = All;		
Details						Change Filter]					
Pattern Se	ets							0 of 8	3 selected 🥖			
Requests	Patt	ern	c	Days		Periods		P	PC	ТРҮ		
Logs	🔲 1(A-	B) *	2	2		В		2		1/2 (10)		
D (1(A-	B)*	2	2	4	8		2		1/2 (01)		
Reference	🔲 2(A-	B)*	2	2	4	8		2		1/2 (01)		
	2(A-	B) *	2	2	4	8		2		1/2 (10)		
	🔲 3(A-	B)*	2	2	4	8		2		1/2 (01)		
	🔲 3(A-	B) *	2	2	4	8		2		1/2 (10)		
	🔲 4(A-	B)*	2	2	4	8		2		1/2 (01)		
	4(A-	B) *	2	2	1	8		2		1/2 (10)		

Note that there are now 2 records for each period, the difference between the two can be seen in the TPY column.

The semester 2 patterns are represented by 01.

Next ensure you have patterns that represent just sections that could be offered Full Year. The image below shows a 2 day school with all the possible patterns that a Full Year or Semester section could be scheduled into:

🖉 🍆 MyEdu	ication BC: Global 🛛 🗙 📃											
← → (ts1.myeducation.gov	.bc.ca/aspen/patternList	.do									
Co Co	RITISH LUMBIA MyEducationBC	South Kamloops So SM6-Complete	econdary 201	5-2016								
Pages	Scenario Workspace	Courses Student	Staff Roor	ns Rules	Global							
Options	Reports Help											
Patterns	Patterns											
Pattern			Criteria		Days = All; Periods =	= All; PPC = All; Pattern Style	e = All; Pattern Type = All;					
Details			Change F	ter								
Pattern Se	ts				0 of 16 s	elected 🥖						
Requests	Pattern	Days	Periods		PPC	ТРҮ						
Logs	1(A)	2	8		1	0/0 (0))					
D-f	1(A-B) *	2	8		2	1/2 (10	D)					
Reference	(A-B) *	2	8		2	1/2 (0	1)					
	(B)	2	8		1	0/0 (0))					
	2(A)	2	8		1	0/0 (0))					
	2(A-B) *	2	8		2	1/2 (0	1)					
	2(A-B) *	2	8		2	1/2 (10	D)					
	2(B)	2	8		1	0/0 (0))					
	3(A)	2	8		1	0/0 (0))					
	3(A-B) *	2	8		2	1/2 (0	1)					
	3(A-B) *	2	8		2	1/2 (10	D)					
	3(B)	2	8		1	0/0 (0))					
	(A)	2	8		1	0/0 (0))					
	(A-B) *	2	8		2	1/2 (0	1)					
	(A-B) *	2	8		2	1/2 (10	0)					
	(B)	2	8		1	0/0 (0))					





4.1.3 Pattern Set

Once created, the patterns need to be grouped into a set with an appropriate name to indicate this set should be used for Full Year and Semester sections.

Global > Pattern Set > Options > Add > Enter the Name > Save

Next click the side leaf Patterns > Options > Add > from the popup window, select all patterns that should be included:

MyEducation BC: Global ×	STATES TO A STATES											
← → C [] ts1.myeducation.gov.bc.ca/aspen/patternSetMemberList.do?navkey=global.sps.list.spm												
BRITISH South Kamloops Secondary 2015-201	6 Chang	e View Select School Se										
COLUMBIA MyEducationBC SM6-Complete	Schedule Pattern Pick List - Google Chrome											
Pages Scenario Workspace Courses Student Staff Rooms	ts1.myeducation.gov.bc.ca/aspen/patternSetMemberPickList.do?au	uth=fscx2jzgKEobgC+E										
Options Reports Help												
Pattern Sets ··· Everyday & Alt days Reg	Pattern Style Simple											
	Pattern Type											
Pattern Library	PPC											
Pattern Sets Pattern	Refresh											
Details	< 1: 1(A) V >	11 of 44 selected 🥖										
- Fatterns	Pattern Days Periods PPC TPY PatternType	PatternStyle										
Requests		Simple										
Logs		Simple										
Reference	1(A-B) 2 8 2 0/0 (0)	Simple										
		Simple										
	✔ 1(B) 2 8 1 0/0 (0)	Simple										
		Simple										
		Simple										
	2(A-B) 2 8 2 0/0 (0)	Simple										
		Simple										
		Simple										
		Simple										
	3(A-B) 2 8 2 0/0 (0)	Simple										
		Simple										
		Simple										
	3(B) 2 8 1 0/0 (0)	Simple										
	OK Cancel											

4.1.4 Course setup

In the Course > Detail > Required area > set the course up to represent a Full Year course and choose the special pattern set created in the previous step: The course setup should look like the following image:

🗾 🍡 MyEduc	ation BC: Courses ×				a logicity of	100.01	ALC: NOT THE			ن ظ	- 0 X	
← → C	ts1.myeducation.g	ov.bc.ca/aspen/	courseSched	uleAttributes.d	o?navkey=cour	rse.csk.css.d	letail				☆ =	
BR COL	ITISH UMBIA MyEducationBO	South Kar SM6-Complete	nloops Sec ″	ondary 201	5-2016				Ch.	inge View Select School Set Pre	ferences Log Off Build View	
Pages	Scenario Workspac	e Courses	Student	Staff Roon	ns Rules	Global						
Options	Reports Help										×	
Courses :	Courses :: MEN12 - ENGLISH 12 🛕											
Details	Save Cancel									Default Template	•	
Requests	Master type *	Class					Academic level	Regular				
Sections	Number*	MEN-12									5	
Rules	Department	English										
Soonehote	Description	ENGLISH 12					Course package					
опараноса	Short description	MEN-12										
	Credit	4.0										
	weight	1.0										
	Include in scheduling	2					Covered terms per year	1	-0			
	Sections scheduled	8					Base terms per year*	1	2			
	Section enrollment max	30					Periods per cycle	1.0	← -3			
							Schedule Pattern Set > Name	Every & Alt	Days-Regular	Q, X 🔶	-4	
	Course Bind Next > Number		Q	Lo	ad priority	0			Section balance type	· · ·		
	Balance by term			Ar	e subs allowed?				Term balance type	T		
	Teacher preparation code			Al	ternate group				Allow partial content?	•		
	Preferred room exempt?			St	udent weight exempt				Valid content terms			
	Max requests	0							Repeat type	None		
	Save Cancel											





4.1.5 Build

When the Build is run (covered in Scheduling Module 8) it will choose, based on all parameters entered, which sections will be scheduled as FY and which in S1 or S2:

🗾 🍡 MyEdu	🔪 MyEducation BC: Workspi x													
$\leftarrow \Rightarrow 0$	← → C □ ts1.myeducation.gov.bc.ca/aspen/masterContextList.do ☆]													☆ =
B cc	BRITISH MyEducationBC South Kamloops Secondary 2015-2016 SM6-Complete												Prefere	inces Log Of Build View
Pages	Scena	ario Works	pace C	ourses Student	Staff Rooms	Rules Global								
Options	R	leports I	Help								T	a-z	th,	📑 🛛 🛛
Sections				9	2									
Sections				+	1	0 of 8 :	selected 🥖						Cus	tom Selection
Details	0	Course	SecNo	ScheduleTerm > Code	Schedule	Primary Staff > Name	PrimaryRoom > Num	Inclusion?	Total	Max	SecType	Platoon	٤	SysRank
Teacher	0	MEN12-001	001	FY	1(1)		J-MAT	N	0	30			2	26
Rules	0	MEN-12-002	002	S1	4(1-2)		J-Libr	N	0	30			2	25
Classes		MEN12-003	003	S2	4(1-2)		J102	N	0	30			2	29
Class Siz	e (MEN12-004	004	S2	2(1-2)		J-MAT	N	0	30			2	27
Summary	/	MEN12-005	005	FY	3(1)		J-MAT	N	0	30			3	30
Matrix Vie	v	MEN12-008	006	S1	2(1-2)		J201	N	0	30			1	164
		MEN-12-007	007	FY	3(2)		J203	N	0	30			1	163
Assignmen	its [MEN12-008	008	FY	1(2)		J121	N	0	30			1	159
Schedules														
Feedback														
Analysis														