



To: Bill Krane
Associate Vice-President, Academic
and Associate Provost

From: Jacy Lee
Director, Institutional Research
and Planning

Subject: Update on Impact of New Scheduling Policy
(effective Fall 2009)

Date: April 19, 2011

Further to the November 10, 2009 memo, attached are three attachments that show the following:

1. Scheduling patterns of **undergraduate primary class sections** (Burnaby, Surrey and Vancouver campuses) in Fall 2010 compared to Fall 2009 (including Fall 2008 in Attachment 1), and
2. Percent usage of **centrally scheduled classrooms** (Burnaby only), in Fall 2010 compared to Fall 2008 and Fall 2009.

Highlights include:

- With respect to scheduling of all primary class sections (see Attachment 1):
 - In Fall 2010, the busiest period was between 9:30 am - 11:30 am on Mondays to Fridays and between 1:30 pm to 4:30 pm on Mondays to Thursdays. Compared to Fall 2009, there was a slight increase in the scheduling of sections overall because more sections were offered in Fall 2010. In particular, there was an increase on Tuesday and Thursday mornings between 8:30 am - 9:30 am. In Fall 2008, the busiest period was between 9:30 am - 11:30 am and 1:30 pm - 2:30 pm on Monday through to Thursday. Compared to Fall 2008, there was a decrease in scheduling sections during those times, and an increase on Tuesdays and Thursdays during 8:30 am - 9:00 am and on Mondays and Wednesdays during 4:30pm - 5:00 pm (see Figs 1A to 1F).
 - Friday continues to be different from the other weekdays. In Fall 2010, there was a decrease in the scheduling of primary class sections on Friday mornings but a slight increase on Friday afternoons, compared to Fall 2009 (see Fig. 1D). Compared to Fall 2008, there was an increase in sections scheduled throughout the day (see Fig1E).
 - Compared to Fall 2009, the percentage of sections that are scheduled during prime time (10:30 am - 2:30 pm) in Fall 2010 has dropped on Mondays, Wednesdays and Fridays. The percentage of sections scheduled after 4:30 pm also has increased on Mondays and Wednesdays (see Tables 1A to 1C and Fig. 1D)).
 - Compared to Fall 2008, the Wednesday peak between 10:30 am - 11.30 am has leveled off in Fall 2010 (and Fall 2009) (see Fig. 2C).

- With respect to centrally scheduled classrooms (see Attachment 2):
 - Compared to Fall 2008 and Fall 2009, there was some leveling off in the use of centrally scheduled rooms within each week. In Fall 2008 and 2009, Wednesday continued to be the busiest day of the week but in Fall 2010, Tuesday was as busy as Wednesday (see Fig. 3 and Table 3).
 - Compared to Fall 2009, the percent usage of centrally scheduled classrooms has increased in Fall 2010 on Monday afternoons, and Tuesday mornings (see Figure 4A.1 to 4A.3).
 - The pattern of usage of centrally scheduled classrooms in Fall 2010 bears a higher resemblance to Fall 2009 than Fall 2008 overall. Compared to Fall 2008, the percent usage of these classrooms in Fall 2009 and Fall 2010: a) dropped between 12:20 pm – 1:30 pm, and b) increased on Friday (see Fig 4A to 4E).
- With respect to scheduling of all primary class sections by Division and Faculty (see Attachment 3)
 - For all 100-level courses, the pattern in Fall 2010 has slightly evened out such that there were more sections scheduled on Monday and Wednesday afternoons compared to Fall 2009. However the busiest times were still on Tuesday and Thursday between 10:30 am – 12:30 pm and between 2:30 pm – 4:30 pm (see Fig 5A and 5B).
 - For all 200-level courses, the pattern in Fall 2010 was similar to Fall 2009 (see Figure 5C and 5D).
 - For Applied Sciences upper division sections, the pattern has changed from a concentration of sections offered on Monday, Wednesday and Friday in Fall 2009 to a more even pattern in Fall 2010 (see Figure 6A and 6B).
 - For Arts and Social Sciences upper division sections, the pattern in Fall 2010 was similar to Fall 2009. The busiest times were still on Monday between 10:30 am – 11:30 am, and on Tuesday between 11:30 am – 12:30 pm and between 1:30 pm – 2:30 pm (see Figures 6C and 6D).
 - For Business upper division sections, some smoothing out have occurred in Fall 2010 compared to Fall 2009. In Fall 2010, Tuesday afternoon between 2:30 pm – 4:30 pm, Wednesday morning between 10:30 am – 11:30 am, afternoon between 2:30 pm - 4:30 pm and evening between 6:30 pm – 8:30 pm, and Thursday between 6:30 pm – 7:30 pm were distinctly very busy times (see Figures 6E and 6F).
 - For Communication, Art and Technology upper division sections, some smoothing out have occurred in Fall 2010 compared to Fall 2009. However, there was an increased concentration of sections on Thursday between 10:30 am – 12:30 pm (see Fig 6G and 6H).
 - For Education upper division sections, more sections in Fall 2010 were offered in the morning but there was still a notable concentration of sections offered during 4:30 pm - 7:30 pm from Monday to Wednesday, probably to cater to students who work.

No class section is offered on Thursday between 8:30 am – 4:30 pm (see Fig 6I and 6J).

- For Environment upper division sections, the pattern in Fall 2010 has changed slightly in that there were more sections offered after 4:30 pm. However, as in Fall 2009, no section is offered on Wednesday from 10:30 am – 4:30 pm (see Fig 6K and 6L).
- For Health Science upper division sections, in Fall 2010, more timeslots were scheduled to accommodate the increase in the number of sections, compared to Fall 2009. The times between 9:30 am – 11:30 am on Monday and between 2:30 pm – 3:30 pm on Monday and Tuesday were the busiest times but there were only up to 4 sections that overlap (see Figures 6M and 6N).
- For Science upper division sections, there was a heavier concentration of sections scheduled on Monday in Fall 2010 compared to Fall 2009. Very few sections were scheduled on Thursday after 12:30 pm in both Fall 2009 and Fall 2010 (see Figures 6O and 6P).

The contents of the attachments include:

1. Attachment 1: Undergraduate Primary Class Sections

- **Figures 1A to 1F:** Plot of number of undergraduate primary class sections scheduled in Fall 2010 compared to Fall 2008 and Fall 2009 by ½ hour slots (using intensity of colour as per legend provided). (If required, IRP will make available colour copies for the meeting because these plots do not show up well if printed in black and white.)
 - Figure 1A: Fall 2010
 - Figure 1B: Fall 2009
 - Figure 1C: Fall 2008
 - Figure 1D: Difference between Fall 2010 and Fall 2009. Note that the green areas show reduction while the pink areas show increase in the number of class sections scheduled in the relevant time slots. The white areas experienced no change (see legend)
 - Figure 1E: Difference between Fall 2010 and Fall 2008.
 - Figure 1 F: Difference between Fall 2009 and Fall 2008
- **Tables 1A to 1C:** Average prime time and daytime percentages by day of the week
 - Table 1A: Fall 2010
 - Table 1B: Fall 2009
 - Table 1C: Fall 2008
- **Figures 2A to 2E:** Line graph of percentage of undergraduate primary class sections scheduled by ½ hour slots.
 - Figure 2A: Monday (Fall 2008, Fall 2009 and Fall 2010)
 - Figure 2B: Tuesday (Fall 2008, Fall 2009 and Fall 2010)
 - Figure 2C: Wednesday (Fall 2008, Fall 2009 and Fall 2010)
 - Figure 2D: Thursday (Fall 2008, Fall 2009 and Fall 2010)
 - Figure 2E: Friday (Fall 2008, Fall 2009 and Fall 2010)

2. Attachment 2: Centrally Scheduled Classrooms in Burnaby (excludes departmentally scheduled rooms and laboratory rooms)
- **Figure 3:** Line graphs of percentage of weekly instructional hours by day and by term for Fall 2010 compared to Fall 2008 and Fall 2009.
 - **Table 2:** Instructional hours in centrally scheduled rooms by day and by term
 - **Figures 4A to 4F:** Line graphs of percentage centrally scheduled rooms scheduled by one hour slots for Fall 2010 compared to Fall 2008 and Fall 2009. Note that scheduling for non-credit activities are excluded. Credit activities include primary and secondary class sections such as tutorials and LAB (dry labs) that are taught in centrally scheduled rooms.
 - Figure 4A.1: Monday to Friday (Fall 2010 only)
 - Figure 4A.2: Monday to Friday (Fall 2009 only)
 - Figure 4A.3: Monday to Friday (Fall 2008 only)
 - Figure 4B: Monday (Fall 2008, Fall 2009 and Fall 2010)
 - Figure 4C: Tuesday (Fall 2008, Fall 2009 and Fall 2010)
 - Figure 4D: Wednesday (Fall 2008, Fall 2009 and Fall 2010)
 - Figure 4E: Thursday (Fall 2008, Fall 2009 and Fall 2010)
 - Figure 4F: Friday (Fall 2008, Fall 2009 and Fall 2010)
3. Attachment 3: Undergraduate Primary Class Sections by Division and Faculty
- Figures 5A to 5D: All 100-level and 200-level courses
 - Figure 5A: Fall 2010, All 100-level courses
 - Figure 5B: Fall 2009, All 100-level courses
 - Figure 5C: Fall 2010, All 200-level courses
 - Figure 5D: Fall 2009, All 200-level courses
 - Figures 6A to 6P: Upper division courses by Faculty and Term
 - Figure 6A: Applied Sciences, Fall 2010
 - Figure 6B: Applied Sciences, Fall 2009
 - Figure 6C: Arts and Social Sciences, Fall 2010
 - Figure 6D: Arts and Social Sciences, Fall 2009
 - Figure 6E: Business, Fall 2010
 - Figure 6F: Business, Fall 2009
 - Figure 6G: Communication, Art and Technology, Fall 2010
 - Figure 6H: Communication, Art and Technology, Fall 2009
 - Figure 6I: Education, Fall 2010
 - Figure 6J: Education, Fall 2009
 - Figure 6K: Environment, Fall 2010
 - Figure 6L: Environment, Fall 2009
 - Figure 6M: Health Sciences, Fall 2010
 - Figure 6N: Health Sciences, Fall 2009
 - Figure 6O: Science, Fall 2010
 - Figure 6P: Science, Fall 2009

Attachments

Figures 1: Number of Undergraduate Primary Class Sections Scheduled by Half-Hour Time Slot

Fig. 1A: Fall 2010 (1247 sections total)

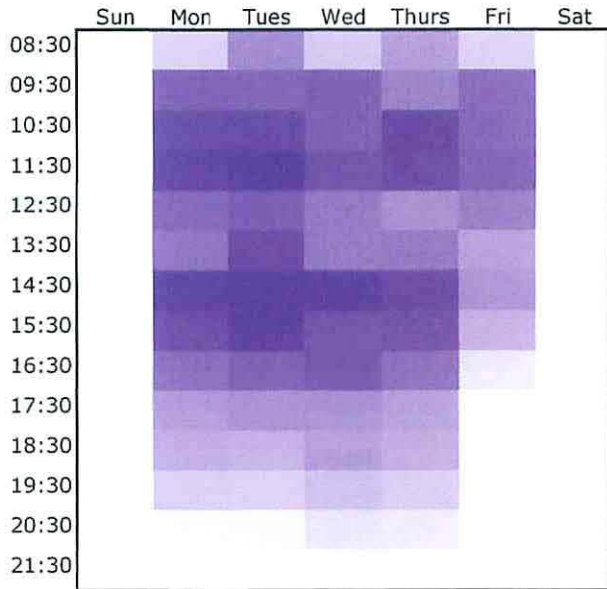


Fig. 1B: Fall 2009 (1154 sections total)

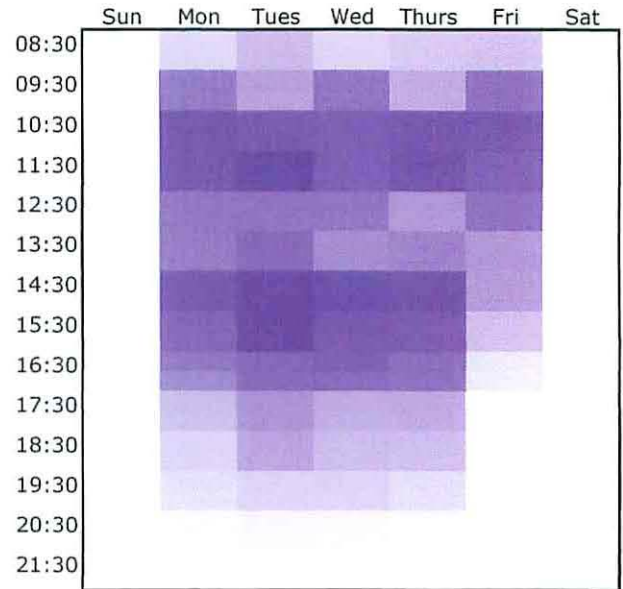


Fig. 1C: Fall 2008 (1193 sections total)

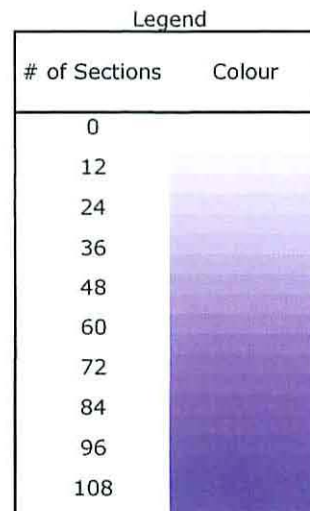
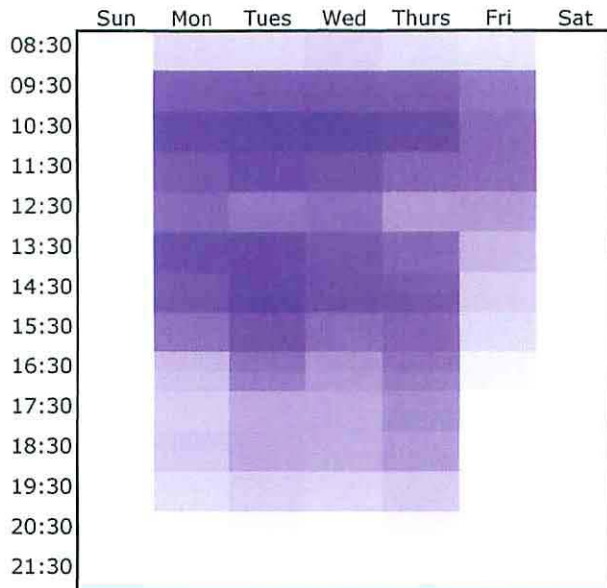


Fig. 1D: Difference (Fall 2010 - Fall 2009)

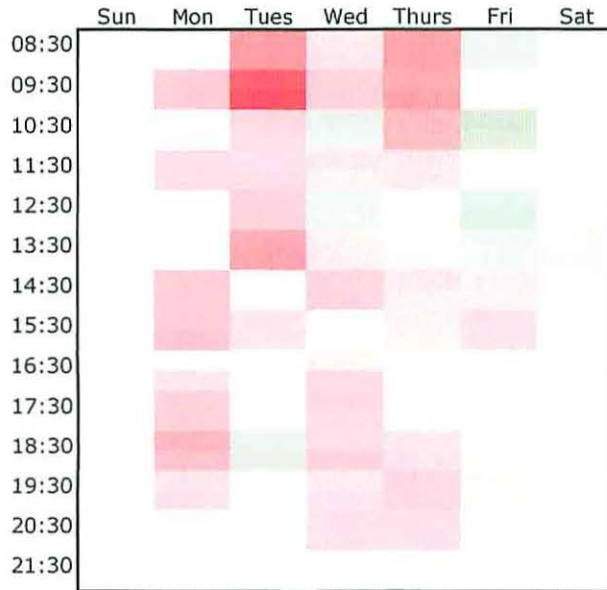


Fig. 1E: Difference (Fall 2010 - Fall 2008)

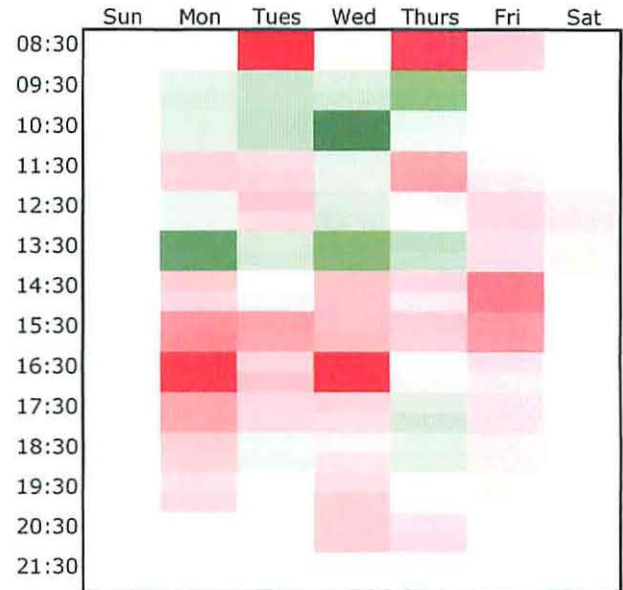
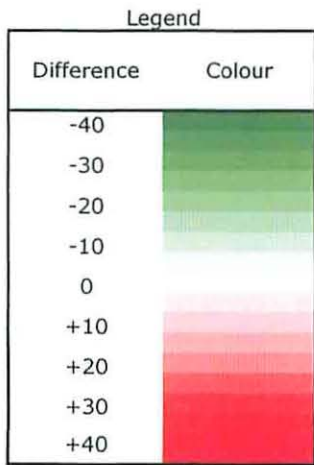
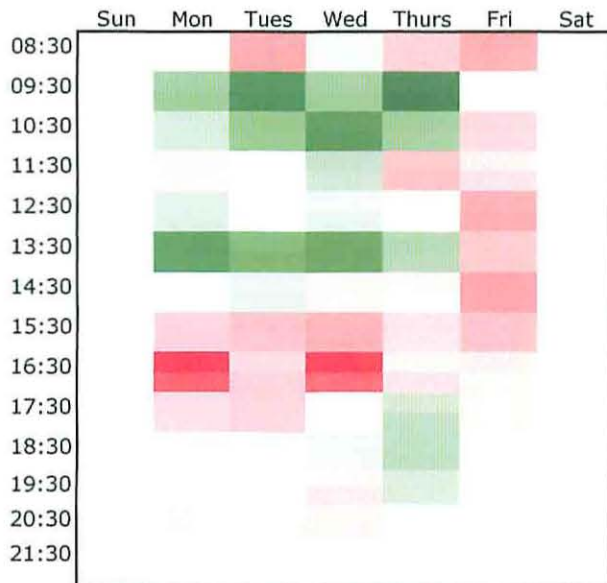


Fig. 1F: Difference (Fall 2009 - Fall 2008)



Tables 1: Percentage of Undergraduate Primary Class Sections Scheduled During Selected Periods**Table 1A: Fall 2010 (1247 sections total)**

	Monday	Tuesday	Wednesday	Thursday	Friday
Prime time (10:30 - 14:30)	16.8%	16.1%	16.2%	14.1%	13.7%
Day time (8:30 - 16:30)	28.9%	26.5%	29.1%	23.7%	22.5%
Entire day (8:30 - 22:30)	33.6%	31.6%	34.6%	28.5%	22.9%

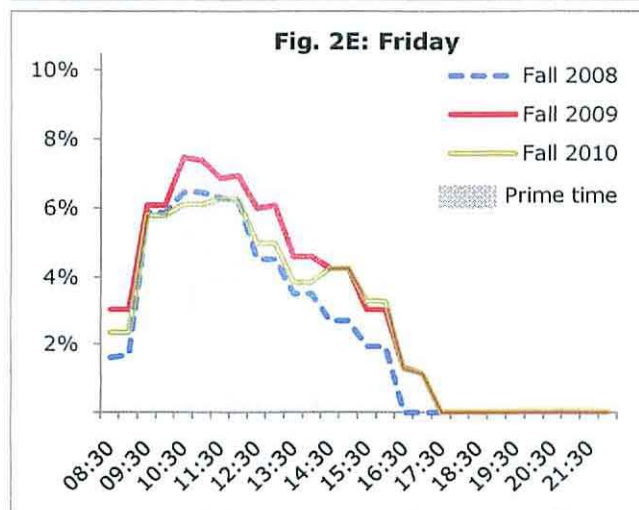
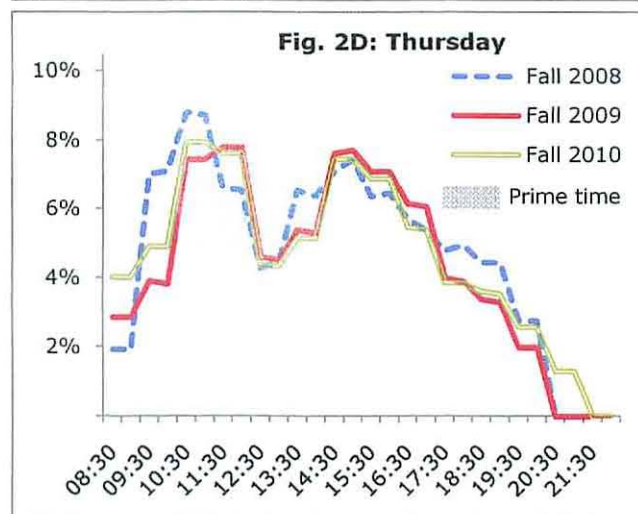
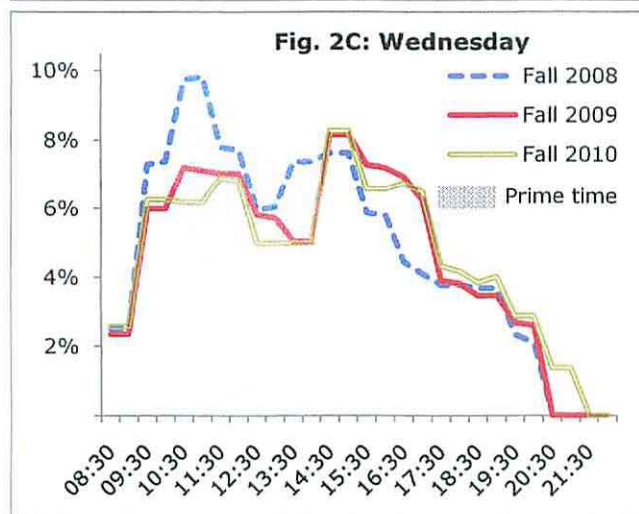
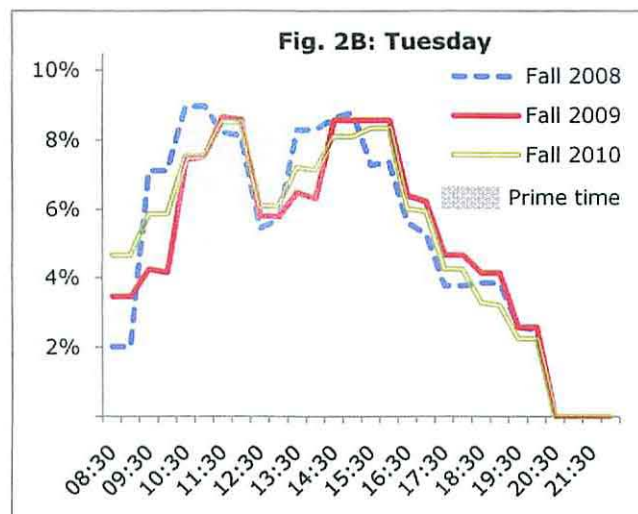
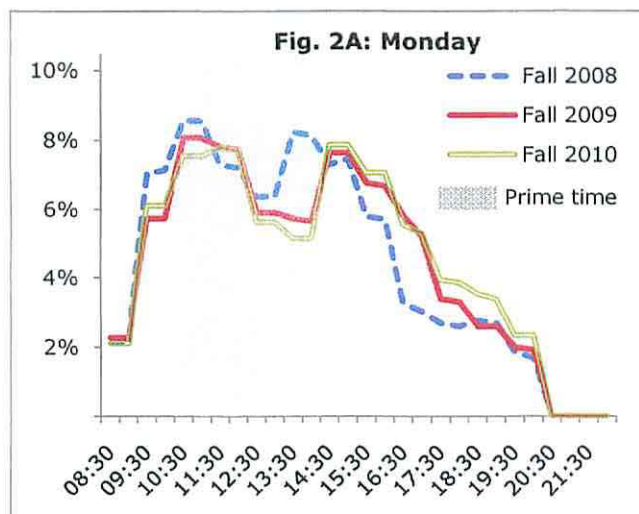
Table 1B: Fall 2009 (1154 sections total)

	Monday	Tuesday	Wednesday	Thursday	Friday
Prime time (10:30 - 14:30)	18.4%	15.2%	18.1%	14.0%	16.0%
Day time (8:30 - 16:30)	30.6%	25.7%	31.7%	22.6%	25.6%
Entire day (8:30 - 22:30)	34.5%	31.6%	36.7%	27.2%	25.7%

Table 1C: Fall 2008 (1193 sections total)

	Monday	Tuesday	Wednesday	Thursday	Friday
Prime time (10:30 - 14:30)	21.5%	21.1%	22.9%	18.7%	14.9%
Day time (8:30 - 16:30)	31.7%	30.0%	32.6%	26.3%	20.3%
Entire day (8:30 - 22:30)	34.8%	34.9%	37.3%	31.8%	20.3%

Figures 2: Percentage of Undergraduate Primary Class Sections Scheduled by Half-Hour Time Slot



Notes:

1) The following course sections are excluded from this report:

Secondary sections (e.g. tutorials)

Distance education sections

Sections held offsite

Sections without scheduled classes

(e.g. directed studies)

English Bridge and Back on Track course sections

2) "Prime time" is defined as the period between 10:30am and 2:30pm (14:30 hours).

"Daytime hours" are defined as 8:30 to 16:30.

Figure 3: Daily Scheduling of the Centrally Scheduled Rooms (Burnaby)

The figure below shows the distribution of weekly instructional hours in centrally scheduled rooms by days of the week

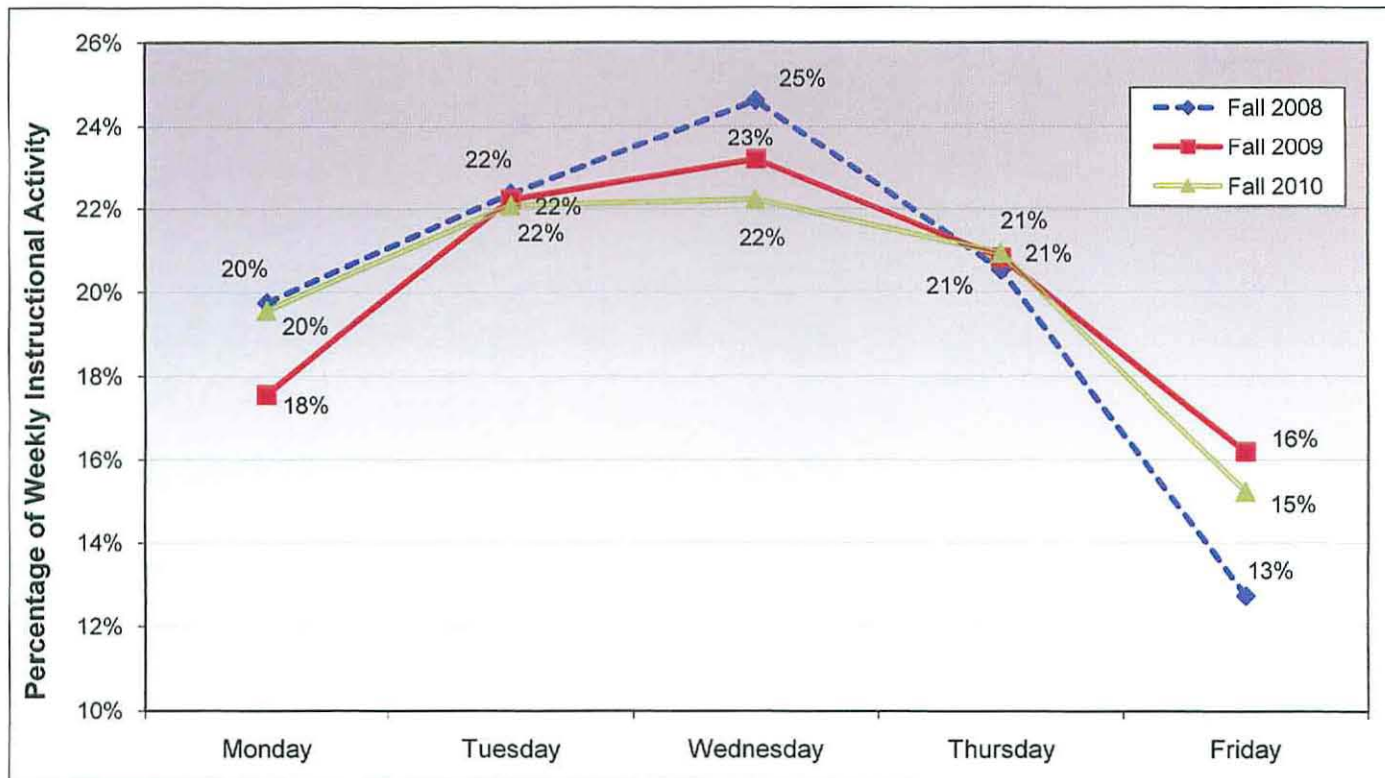


Table 2: Instructional Hours Held Within the Centrally Scheduled Rooms (Burnaby)

	Monday	Tuesday	Wednesday	Thursday	Friday
Fall 2010	831	938	944	890	648
Fall 2009	721	912	952	855	666
Fall 2008	792	897	988	824	512

Notes:

- 1) Only for-credit instruction occurring in centrally scheduled classrooms on the Burnaby campus is included. Laboratory rooms are not included.
- 2) Above usage reflects both undergraduate and graduate credit activity.
- 3) Secondary sections (e.g. tutorials) are included.

The charts below depict the utilization rates of the 120 centrally scheduled rooms by day of week and time slot. The idea here is to see how well distributed classes are across the available daily time slots available for booking (10:30 a.m. to 2:30 p.m. is considered peak scheduling time).

Figure 4A.1: Percent Usage of the 120 Centrally Scheduled Rooms (Burnaby) - Fall 2010

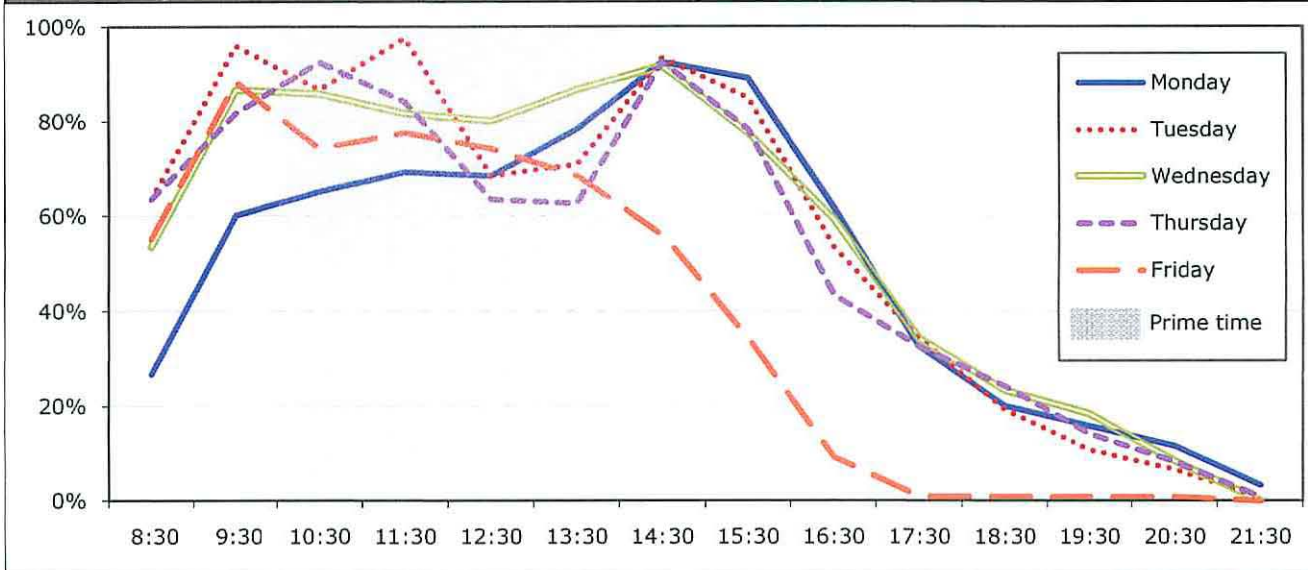


Figure 4A.2: Percent Usage of the 120 Centrally Scheduled Rooms (Burnaby) - Fall 2009

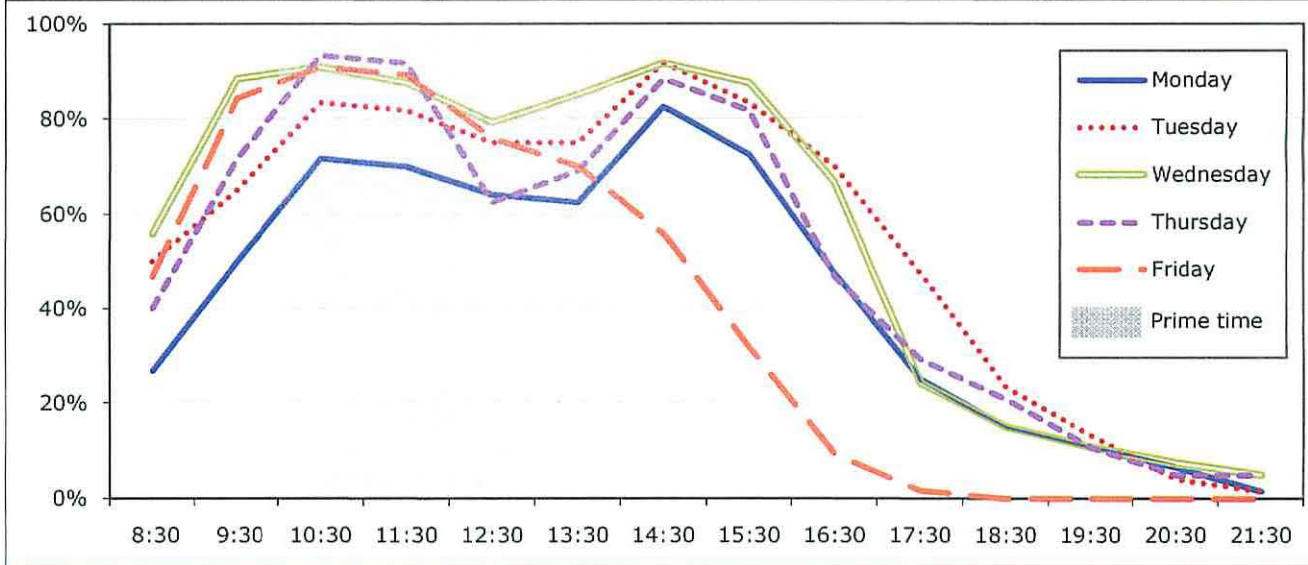


Figure 4A.3: Percent Usage of the 122 Centrally Scheduled Rooms (Burnaby) - Fall 2008

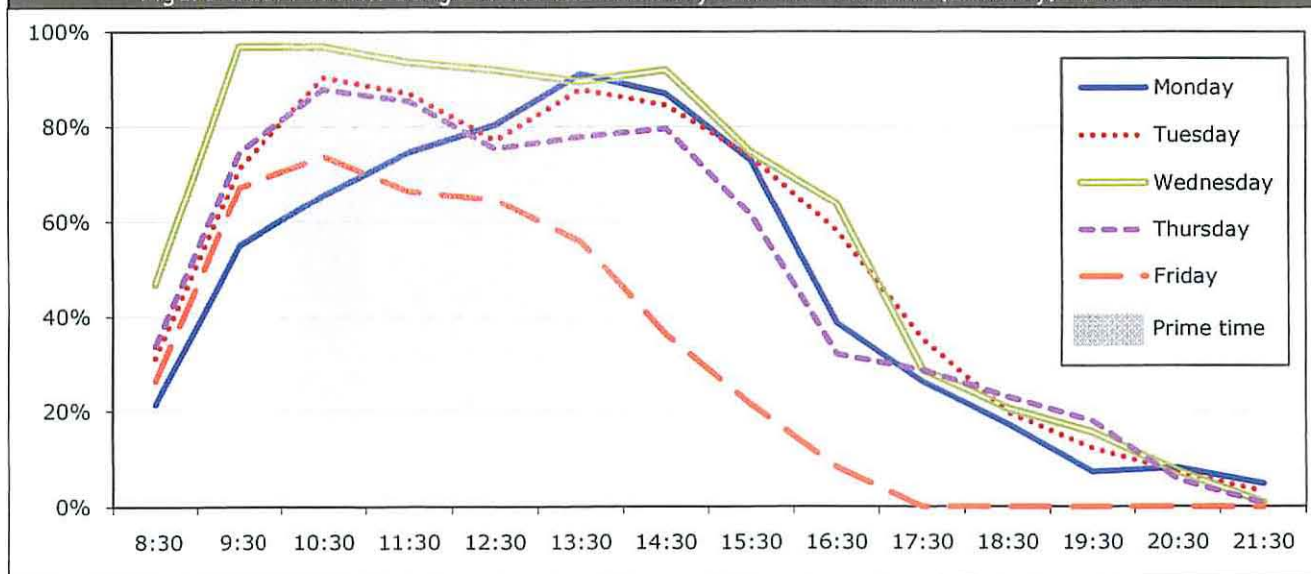


Figure 4B: Percent Usage of Centrally Scheduled Rooms (Burnaby) - Monday

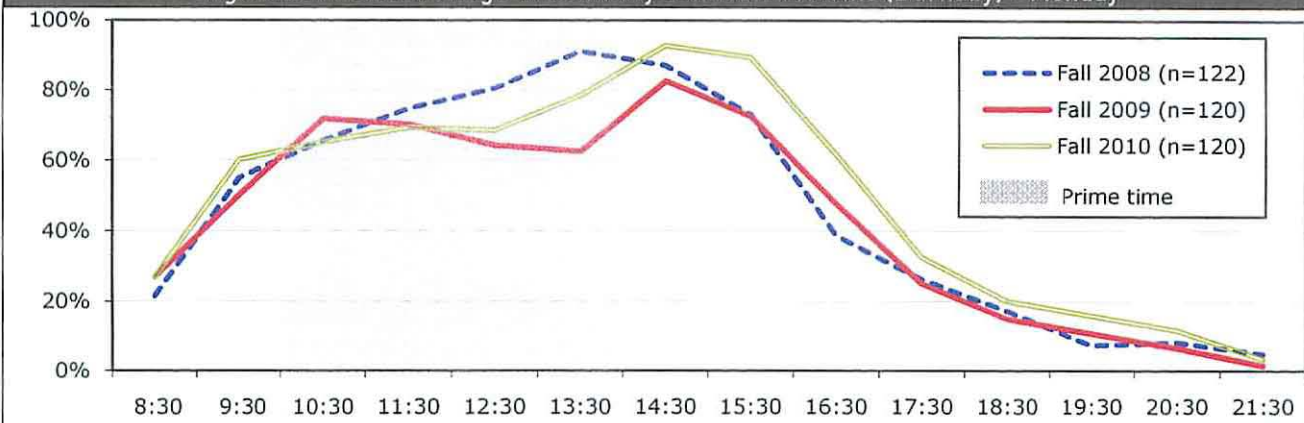


Figure 4C: Percent Usage of Centrally Scheduled Rooms (Burnaby) - Tuesday

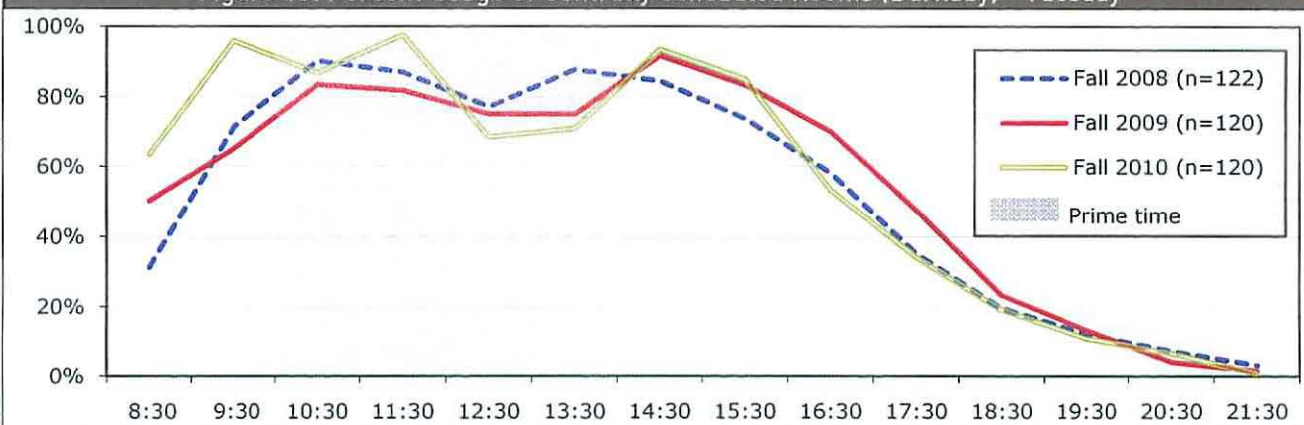


Figure 4D: Percent Usage of Centrally Scheduled Rooms (Burnaby) - Wednesday

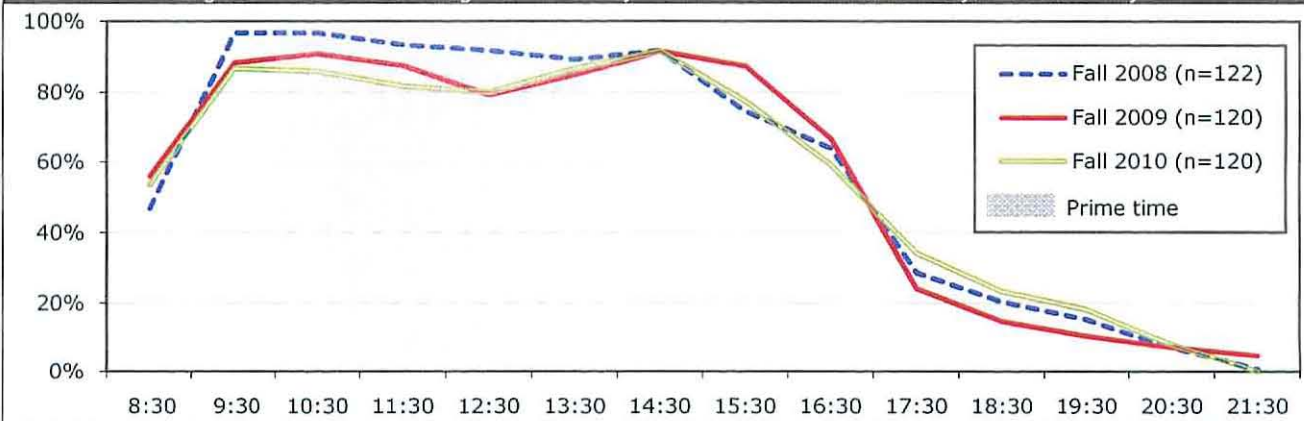


Figure 4E: Percent Usage of Centrally Scheduled Rooms (Burnaby) - Thursday

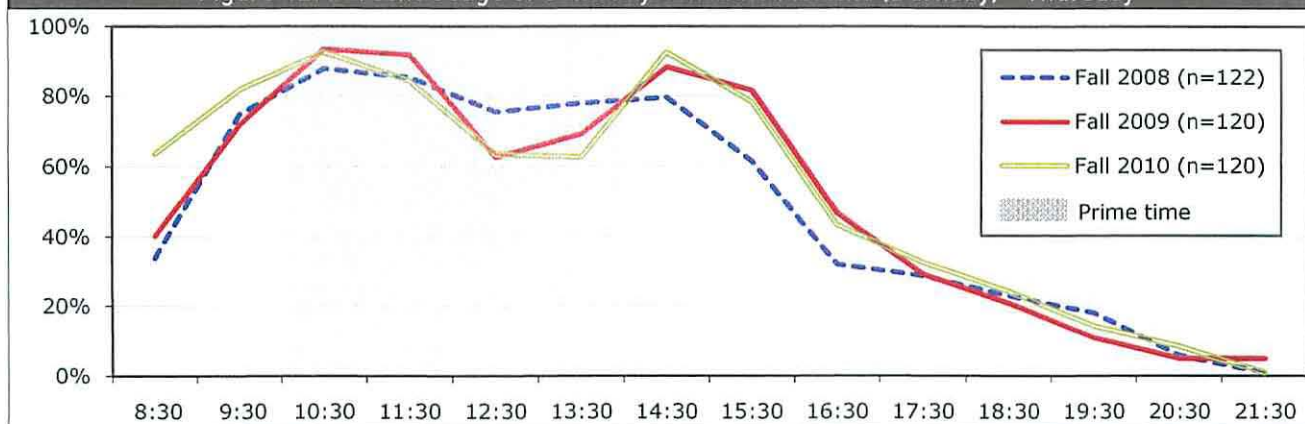
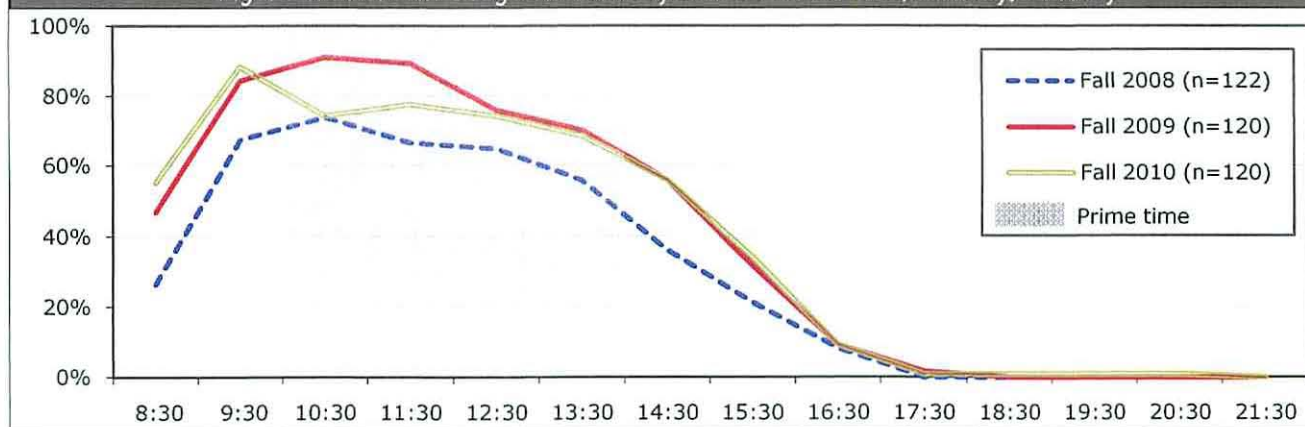


Figure 4F: Percent Usage of Centrally Scheduled Rooms (Burnaby) - Friday

**Notes:**

- 1) This report only recognizes those classrooms scheduled for credit activity for at least one hour per week in the respective semester (122 in Fall 2008, 120 in Fall 2009 and Fall 2010). Laboratory rooms are not included.
- 2) Above usage reflects both undergraduate and graduate credit activity.
- 3) Secondary sections (e.g. tutorials) are included.
- 4) "Prime time" is defined as the period between 10:30am and 2:30pm (14:30 hours).

Undergraduate Lower-Division Primary Class Sections Scheduled by Half-Hour Time Slot

Fig. 5A: Fall 2010, All 100-Level Courses (325 sections)

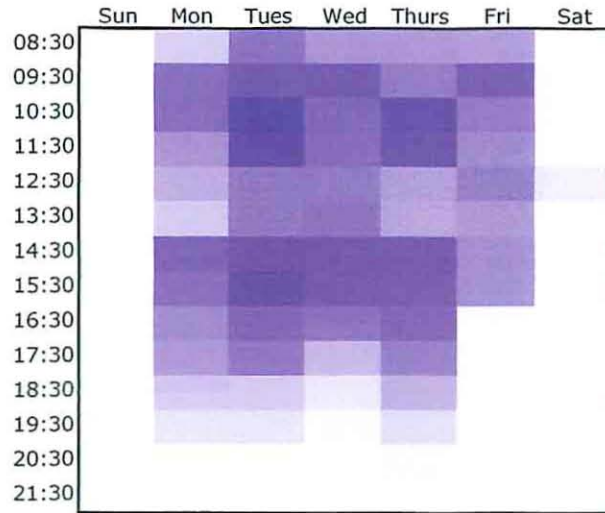


Fig. 5B: Fall 2009, All 100-Level Courses (294 sections)

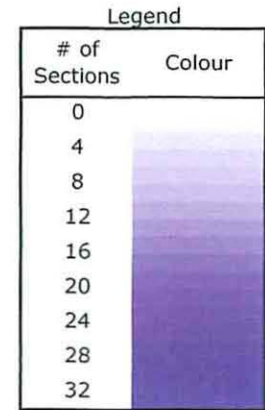
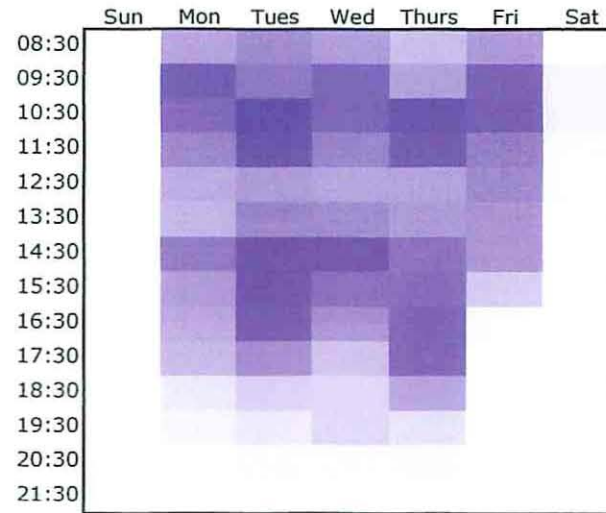


Fig. 5C: Fall 2010, All 200-Level Courses (241 sections)

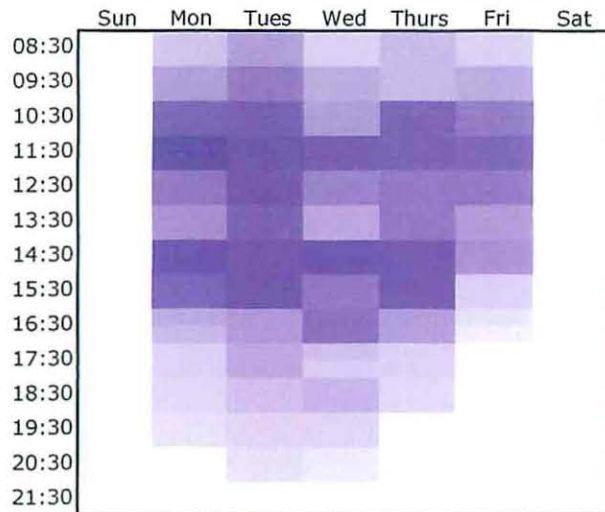
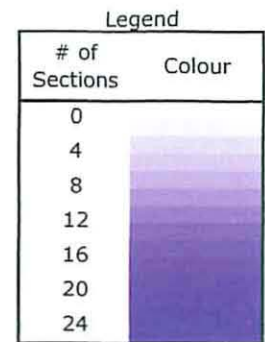
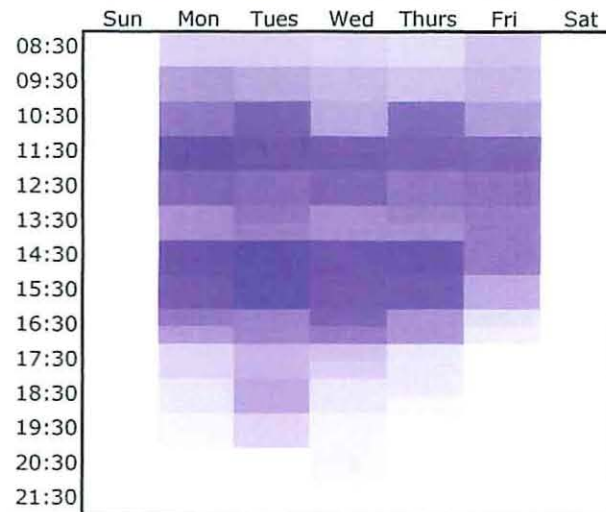


Fig. 5D: Fall 2009, All 200-Level Courses (232 sections)



Undergraduate Upper-Division Primary Class Sections Scheduled by Faculty and Half-Hour Time Slot

Fig. 6A: Fall 2010, Applied Sciences (46 sections)

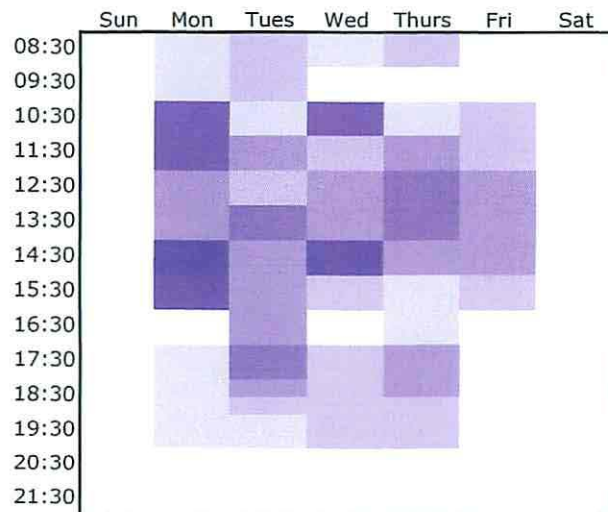


Fig. 6B: Fall 2009, Applied Sciences (48 sections)

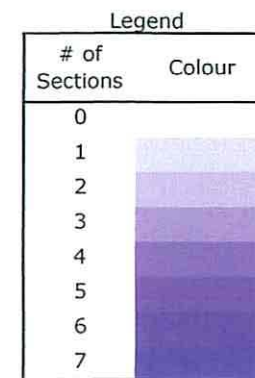
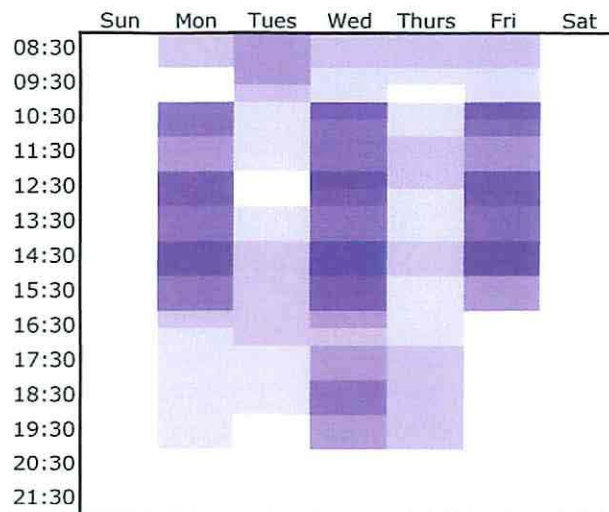


Fig. 6C: Fall 2010, Arts & Social Sciences (273 sections)

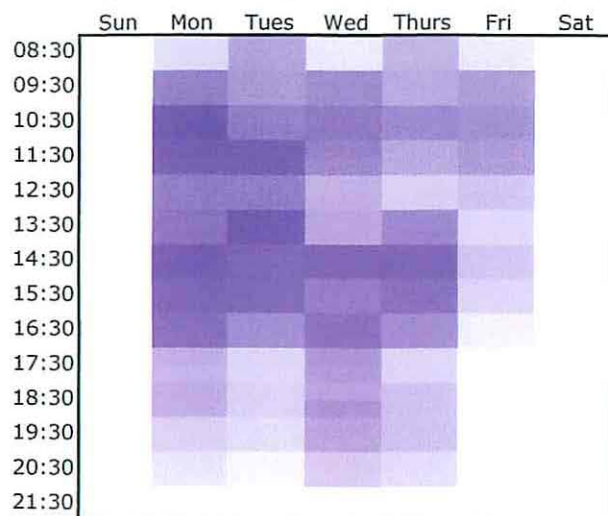
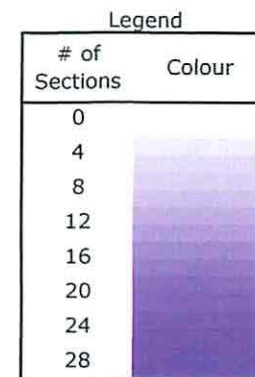
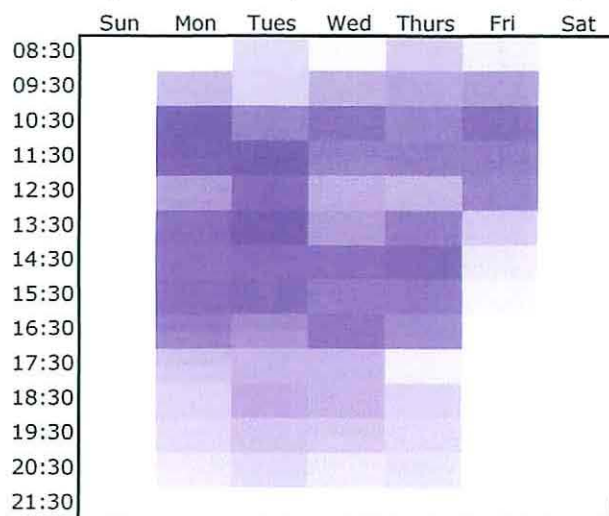


Fig. 6D: Fall 2009, Arts & Social Sciences (247 sections)



Undergraduate Upper-Division Primary Class Sections Scheduled by Faculty and Half-Hour Time Slot (continued)

Fig. 6E: Fall 2010, Business (97 sections)

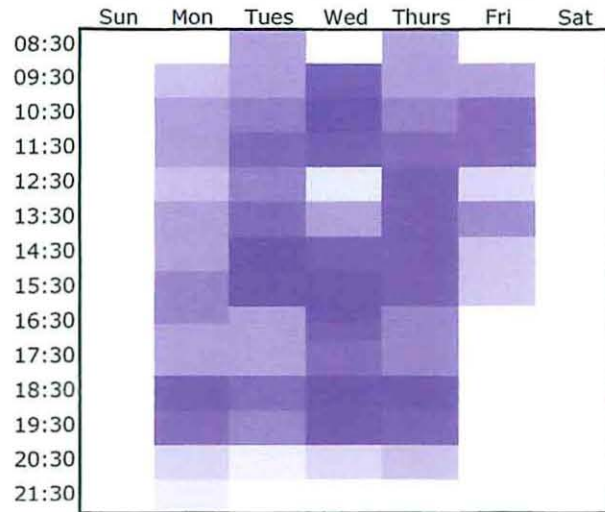


Fig. 6F: Fall 2009, Business (89 sections)

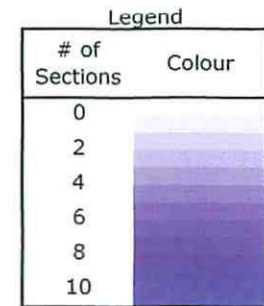
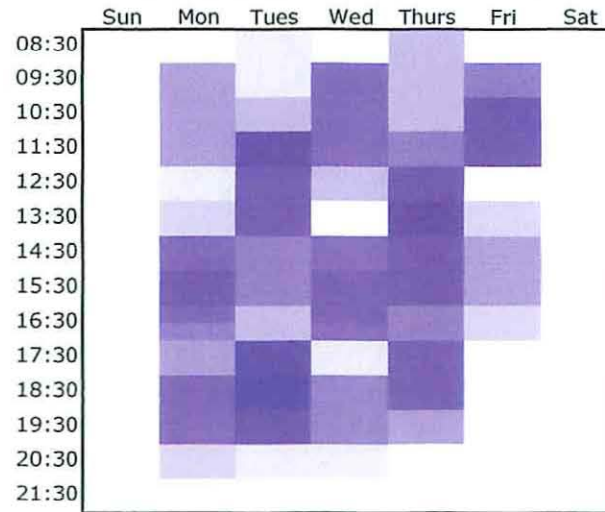


Fig. 6G: Fall 2010, Comm., Art & Tech. (83 sections)

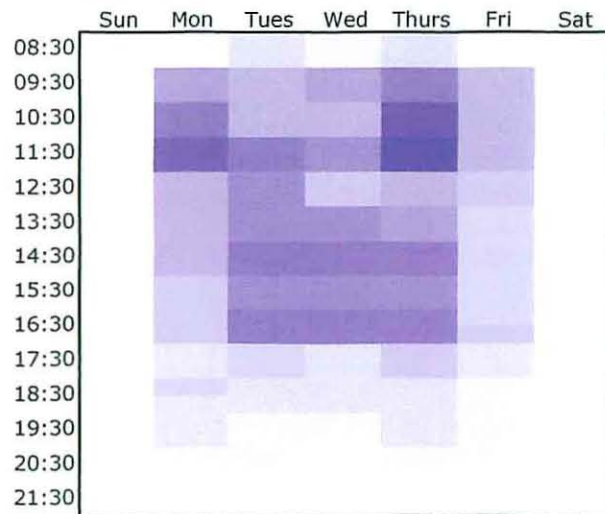
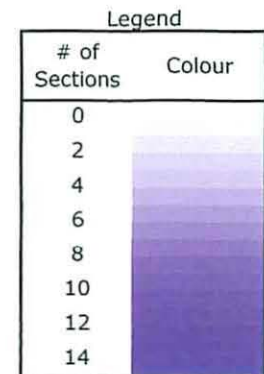
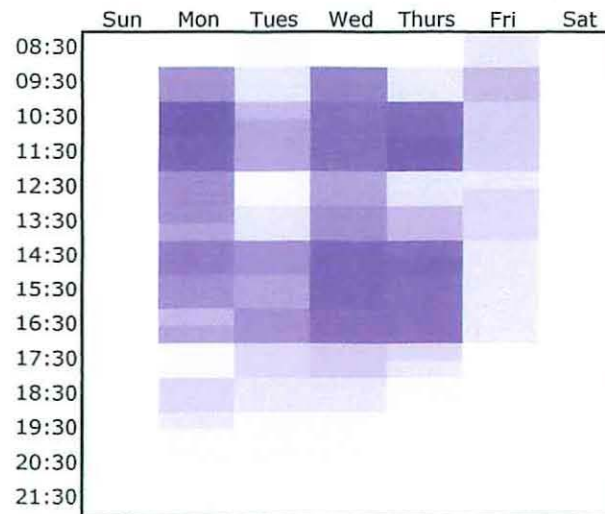


Fig. 6H: Fall 2009, Comm., Art & Tech. (80 sections)



Undergraduate Upper-Division Primary Class Sections Scheduled by Faculty and Half-Hour Time Slot (continued)

Fig. 6I: Fall 2010, Education (29 sections)

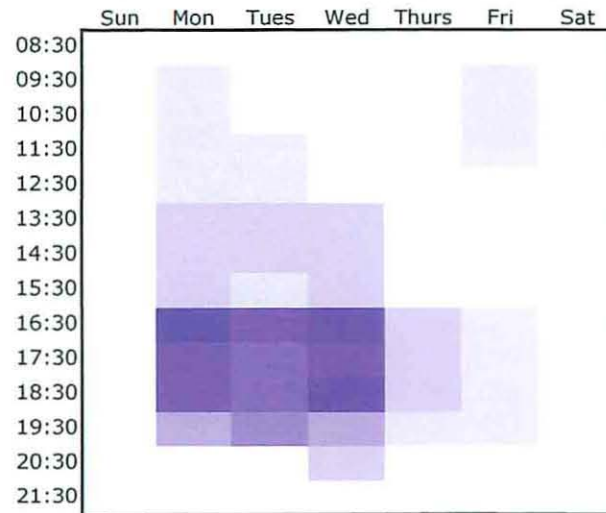


Fig. 6J: Fall 2009, Education (23 sections)

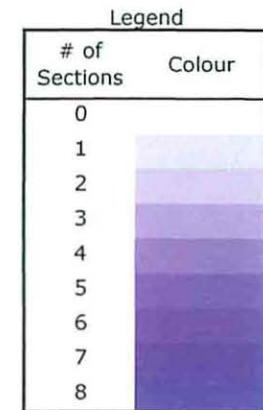
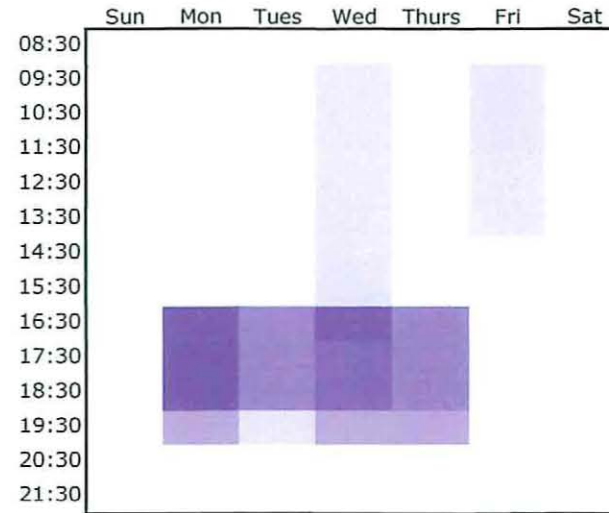


Fig. 6K: Fall 2010, Environment (26 sections)

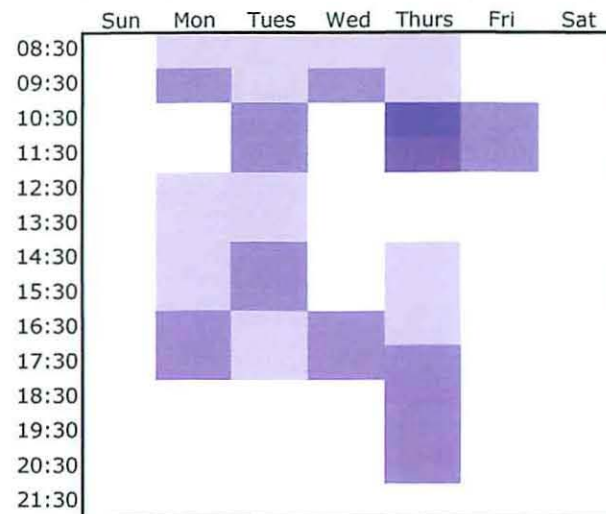
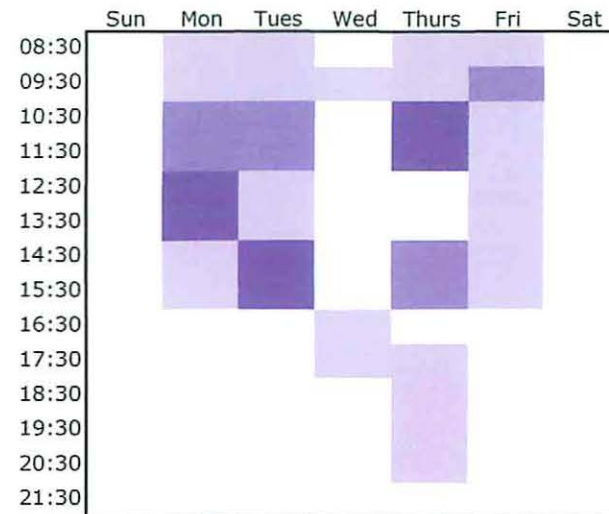


Fig. 6L: Fall 2009, Environment (27 sections)



Undergraduate Upper-Division Primary Class Sections Scheduled by Faculty and Half-Hour Time Slot (continued)

Fig. 6M: Fall 2010, Health Sciences (24 sections)

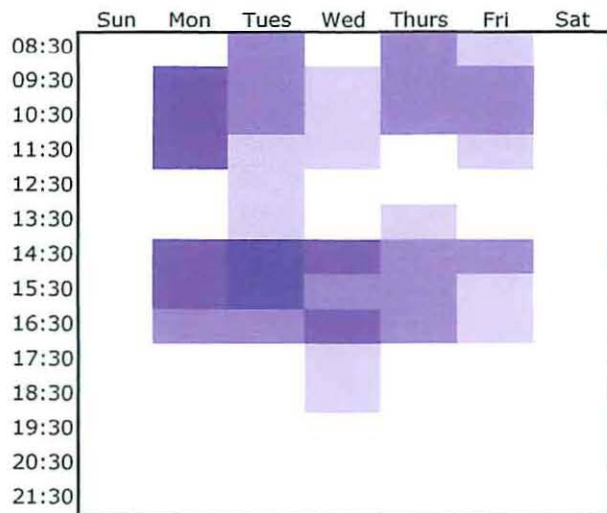


Fig. 6N: Fall 2009, Health Sciences (17 sections)

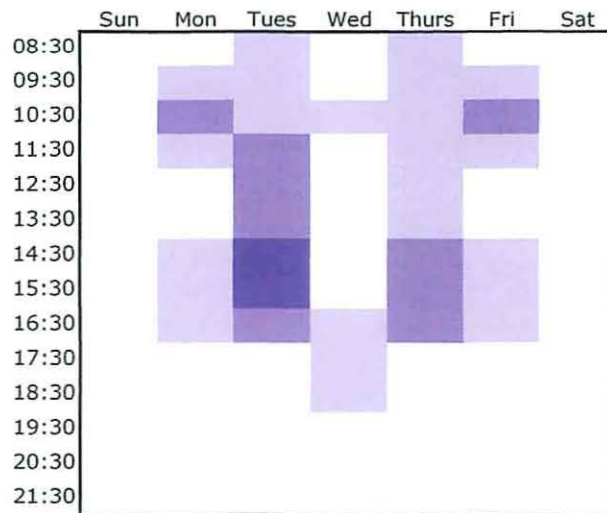


Fig. 6O: Fall 2010, Science (103 sections)

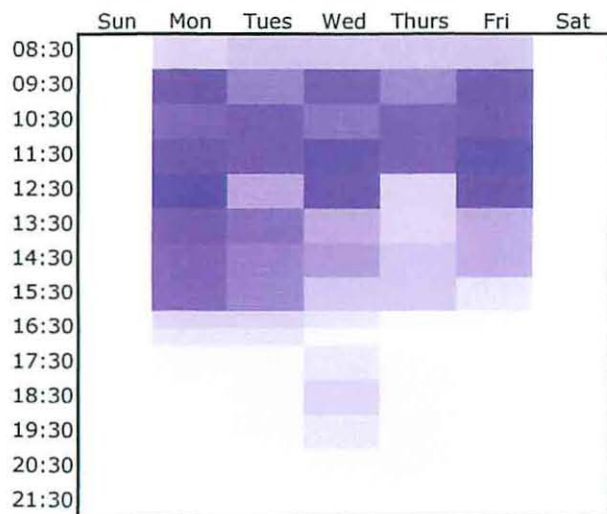


Fig. 6P: Fall 2009, Science (97 sections)

