

**Report from the *ad hoc* Block Scheduling Committee
to the Provost**

Brandeis University

February 26, 2009

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Executive Summary

The *ad hoc* Block Scheduling Committee was established by the Provost in the spring 2008 semester. The committee was charged with examining and elucidating the principles and practices surrounding the scheduling of courses at Brandeis, with the goal of assessing whether changes to the Block system could result in improvements.

The committee includes faculty from all four schools within Arts and Sciences, along with faculty from the Heller School and the International Business School. It also includes student members, both undergraduate and graduate, as well as members of the registrar's office and other staff who are involved in scheduling classes. The committee is chaired by Professor Mick Watson.

The committee was instructed to review and analyze the current rules the university imposes (through the Registrar's Office), departmental scheduling practices, the needs of students and faculty, and the physical constraints of having a finite number of classrooms. The committee was also instructed to solicit the views of students, faculty, and staff, and to examine scheduling practices at other institutions. Having completed these tasks, and after having deliberated over the pros and cons of various options for change, we summarize our specific recommendations below:

1. We recommend changing the block system to the following:
 - a. Three-day-a-week courses (50 minutes per session) will meet on MWF, with blocks running from 8:00 a.m. to 2:00 p.m. There will be slightly fewer three-day-a-week blocks than are currently constituted. In general, the only classes scheduled on Fridays until 2:00 p.m. will be the three-day-a-week courses.
 - b. Two-day-a-week courses (80 minutes per session) will meet on TTh and MW throughout the day and into the evening. There will be many more two-day-a-week blocks than are currently scheduled.
 - c. The block system will work on a model of "interchangeable *Lego* blocks" in which different class lengths may be made by combining blocks (with little overlap or inconsistencies in the blocks). For example, two 80 minute blocks can be combined to make a 3-hour class. It will be possible on this schedule to accommodate some special situations for labs, IBS courses, and studio courses. The block system fits in quite well with the train schedule, which has been especially problematic for some students in the evenings.
 - d. We will use a full schedule of classes on Thursday afternoons and evenings, thus unpacking our schedule and better utilizing our limited number of classrooms. We recommend that the Faculty Meeting be switched to Friday afternoons, beginning at 2:00 p.m. We will stop scheduling classes after 2:00 p.m. on Friday afternoons (although in special cases classes could use Friday afternoons, e.g., from Heller and IBS). Most students and many faculty

members wanted to eliminate Friday afternoon classes, often for religious observance, not only for Jewish students and faculty but also for Muslim students and faculty.

2. We recommend changing the starting time for all classes to "on the hour or half hour" and ending 10 minutes before the hour (e.g., 9:00 a.m. to 9:50 a.m.). This schedule is in line with the vast majority of schools we compare ourselves to and also in line with the regular hours utilized in the rest of our larger community. This schedule will bring us in line with all administrative meetings on campus and do away with the problematic "Brandeis time." It will be easier to coordinate work study, jobs, meetings, and other appointments on campus.
3. We recommend that several practices for scheduling courses be considered and utilized by departments, including a few cases in which we will recommend transferring the scheduling of classes to the Registrar (e.g., coordination of the main science courses and some of the largest lecture courses at Brandeis). The Science faculty generally would welcome some of these changes, and the new system will make possible their ability to avoid overlaps and even allow them to spread out the scheduled labs.

****New Block Schedule Chart**

Time		Monday	Tuesday	Wednesday	Thursday	Friday
8:00		A		A		A
	8:30					
9:00		B	B1	B	B1	B
	9:30					
10:00		M1		M1		M1
	10:30					
11:00		C	C1	C	C1	C
	11:30					
12:00		D	D1	D	D1	D
	12:30					
1:00		M2		M2		M2
	1:30					
2:00			E1		E1	
	2:30					
3:00		K	P	K	P	
	3:30					
4:00		L	V	L	V	
	4:30					
5:00		X	W	X	W	
	5:30					
6:00		Y	Z	Y	Z	
	6:30					
7:00		Y	Z	Y	Z	
	7:30					
8:00		Y	Z	Y	Z	
	8:30					
9:00						

Standard Meeting Block Times (as shown in the chart)

A = MWF 8:00 – 8:50

B = MWF 9:00 – 9:50

M1 = MWF 10:00 – 10:50

C = MWF 11:00 – 11:50

D = MWF 12:00 – 12:50

M2 = MWF 1:00 – 1:50

K = MW 3:00 – 4:20

L = MW 4:30 – 5:50

X = MW 6:00 – 7:20

Y = MW 7:30 – 8:50

B1 = 9:00 – 10:20 MW

C1 = 10:30 – 11:50 MW

D1 = 12:00 – 1:20 MW

E1 = 1:30 - 2:50 MW

G = 9:00 – 10:20 T Th

H = 10:30 – 11:50 T Th

J = 12:00 – 1:20 T Th

N = 1:30 – 2:50 T Th

P = 3:00 – 4:20 T Th

V = 4:30 – 5:50 T Th

W = 6:00 – 7:20 T Th

Z = 7:30 – 8:50 T Th

Additional Valid Meeting Block Times (not shown on the chart)

Seminar Blocks

S1 = M 3:00 – 5:50

S2 = T 3:00 – 5:50

S3 = W 3:00 – 5:50

S4 = Th 3:00 – 5:50

S5 = T 9:00 – 11:50

S6 = Th 9:00 – 11:50

S7 = F 9:00 – 11:50

X1 = M 6:00 – 8:50

W1 = T 6:00 – 8:50

X2 = W 6:00 – 8:50

W2 = Th 6:00 – 8:50

Language Blocks (classes in T blocks should equal R blocks)

AT = MTWF 8:00 – 8:50

AR = MWThF 8:00 – 8:50

BT = MTWF 9:00 – 9:50

BR = MWThF 9:00 – 9:50

CT = MTWF 11:00 – 11:50

CR = MWThF 11:00 – 11:50

DT = MTWF 12:00 – 12:50

DR = MWThF 12:00 – 12:50

ET = MTWF 1:30 – 2:20

ER = MWThF 1:30 – 2:20

LK1 = MTWTh 3:00 – 3:50 or LK₂ MW 3:00 – 4:20 & T or Th 3:00 – 3:50

LL1 = MTWTh 4:30 – 5:20 or LK₂ MW 4:30 – 5:50 & T or Th 4:30-5:20

Note: Special permission from the Registrar's Office is required for use of blocks M1 & M2 to avoid excessive conflict with courses in overlapping blocks.

Blocks LK1 & LL1 restricted to language levels with multi-sectioned classes.

****Please note:** these recommendations have not yet been modeled against our classrooms and projected enrollments to know if the changes can be physically supported. That modeling will not be possible until sometime during the Fall 2009 semester, as the Registrar's Office must complete the implementation of Resource25 this summer before undertaking that modeling.

Organization of the Report

The Report:

- outlines the Committee's work, including its processes and methods of gathering information;
- summarizes the internal and external data that we have collected on block scheduling and classroom utilization, including our internal survey of students and faculty and an external report prepared for us by the University Leadership Council (additional detail is provided in the appendices);
- makes recommendations for changing current block scheduling practices by proposing a new block schedule model, and new practices and procedures.

Context for the Committee's Formation

In the Spring of 2008, Provost Marty Krauss formed the *ad hoc* Block Scheduling Committee to address issues and make recommendations regarding the block scheduling system currently in place at Brandeis University. The utilization of classrooms and class days had not been examined for some time; dissatisfaction among faculty with the block schedule was increasing; and there was a growing perception that the block schedule was a negative influence on pedagogy and that a different schedule could make different learning formats easier to implement. As a result, the Provost charged the committee with examining the block schedule system.

The Charge to the Committee

The charge that we received from the Provost read as follows:

The committee is charged with examining and elucidating the principles and practices surrounding the scheduling of courses at the University with the goal of assessing whether changes to the Block system could result in improvements. The committee should review and analyze the current rules the University imposes (through the Registrar's office), departmental scheduling practices, the needs of students and faculty, and the physical constraints of having a finite number of classrooms. The committee is to present the Provost with a summary of current practices, along with recommendations as to whether change (or not) from those practices is desirable.

Committee Membership

A conscientious effort was made to include committee members who represented a variety of perspectives. The committee includes faculty from all four schools within Arts and Sciences, as well as faculty from the Heller School and the International Business School. It also includes both undergraduate and graduate student members, as well as members of the registrar's office and other staff who are involved in scheduling classes.

Faculty

Mick Watson, Psychology, (Committee Chair)

Sarita Bhalotra, Heller
Tren Dolbear, Economics/IBS
Hollie Harder, Romance Studies
Susan Lichtman, Fine Arts
Sue Lovett, Biology
Dan Perlman, Biology/Environmental Studies
David Wright, NEJS

Staff

Laurel Carpenter, Anthropology
Janet Driscoll, Registrar's Office
Gabrielle Harder, Registrar's Office
Mark Hewitt, Registrar's Office
Ravi Lakshmikanthan, Heller
MaryPat Lohse, Provost's Office (Committee Administrator)
Elaine Wong, Dean's Office (Arts and Sciences)

(Rick Silberman was formerly the Committee Administrator and oversaw procurement of several reports.)

Students

Michael Singer, NEJS, Doctoral Student
Aaron Taylor, Sociology '10
Rebecca Wilkof, HSSP '10

Judith Jaffe assisted the committee by gathering and analyzing data, especially with respect to the faculty and student surveys (discussed below) and provided the summary statements for the surveys. All members of the Committee contributed to its deliberations, its formulation of recommendations, and the writing of various memos and summaries that have been incorporated into this report.

Committee Actions

The Committee identified several areas for research, including:

- the workings of the current system;
- opinions of faculty, students, and staff;
- scheduling practices at other institutions.

To this end, the Registrar's Office prepared a report on the block scheduling system as it bears on classroom use, "Report on Classroom Utilization Fall 2007" (see Appendix A for a copy of this report); the Committee developed, administered, and analyzed an online survey designed to gather feedback from the Brandeis community (see Appendix B for a summary of results); and The Advisory Board, a consulting firm, was engaged to conduct research on the scheduling practices of other institutions (see Appendix C for a summary of the findings).

Research and Data Collection

Report on Classroom Utilization Fall 2007

Results of a report compiled by the Office of the Registrar indicate that we face over-utilization throughout the 9:00 a.m. – 5:00 p.m. day on Mondays and Wednesdays, and under-utilization on Thursdays and Fridays in the late afternoons. When coupled with the results of the research on scheduling practices at other institutions (see below), it becomes clear that we have fewer total classrooms than most of the institutions that reported on scheduling, especially those classrooms in the sizes and configurations most needed. (See Appendix A for “Report on Classroom Utilization Fall 2007.”)

Survey of Faculty, Students, and Staff

The survey was launched in mid-April and was available for completion until the end-of-May. During that time 1,315 students (27%), the overwhelming majority of whom (80%) were undergraduates, and 225 faculty members (41%), 84% of whom were full-time, completed the survey. Survey questions addressed the use of time and space, appropriateness of class length or class space, preferred block types, specific ideas for changes to the scheduling system and the scheduling process. The results of this survey (see Appendix B) informed the Committee’s discussion and decisions.

Scheduling Practices at Other Institutions

This study, conducted by the University Leadership Council of The Advisory Board, examined how university registrars implement block schedules and utilize classroom space. The findings detailed in the report were drawn from interviews with the following institutions: Brown University, Portland State University, Columbia University, Rice University, Dartmouth College, Tufts University, Duke University, Washington University in St. Louis, Hofstra University, Wesleyan University, Johns Hopkins University, The College of William and Mary, and University of Michigan–Ann Arbor. Questions focused on: schedule blocks, classroom utilization, special classes, events, schedule control, and software.

Most of these institutions face the same issues that we do and tend to meet their needs in the same ways we do. The report reveals the predominant use of the MWF and TTh schedules, often with classes ending in the early afternoon on Fridays. To facilitate experiential learning, co-curricular activities, and other events, two schools have traditionally avoided scheduling classes on one or two weekdays, however, one has abandoned this practice in favor of a conventional schedule and the other is finding the practice to be increasingly unsustainable (see Appendix C).

Recommendations

After considering the information gained from our surveys and focus groups and after intensive discussion among the Committee members, we want to recommend the following changes to the Brandeis Block Scheduling system. The first deals with a revised block system and course schedules, and the second deals with class starting times. Following these recommendations, we offer guidelines for departments and administrators, as well as strategies to achieve equity in course scheduling.

1. Revised Block System and Course Schedules

- a. We recommend that **three-day-a-week courses (50 minutes per session) meet on Mondays, Wednesdays, and Fridays (MWF)**, with these “hour blocks” being available beginning at 8:00 a.m. and running until 2:00 p.m. (providing 6 such blocks) (See the revised *New Block Schedule Chart* above.) In general, the only courses regularly scheduled on Fridays until 2:00 p.m. will be these MWF course blocks.

Many faculty members and students believed that the current system, which allows no off-day between the Wednesday and Thursday (Th) classes, is not pedagogically sound. The revised MWF schedule would resolve that problem, would allow almost the same number of three-times-a-week blocks as in the current system, and would allow students to coordinate their Brandeis schedules with the schedules of consortium schools in the greater community. The vast majority of schools in our comparison group use a similar MWF schedule. We believe that adopting this schedule ourselves will encourage more exchange, with students from Brandeis registering for courses at other schools and other students registering for Brandeis courses.

In addition, this schedule will make possible the addition of more twice-a-week courses (see 1b below) and allow more flexibility in the scheduling of a combination of science lecture courses and labs throughout the entire day (explained later in this report). Professors teaching in these MWF time blocks would be required to teach on Fridays; nevertheless, more twice-a-week time blocks not utilizing Fridays would be opened up. We believe the MWF blocks will be most suitable for large lecture courses and introductory courses. These blocks will be especially helpful to the language courses because of the flexibility of times and the ability of professors to schedule some blocks four times per week throughout the day, including using 8:00 a.m. starting times. (See the *New Block Schedule Chart* explanation above and the discussion later in this report.)

- b. We recommend that **two-day-a-week courses (80 minutes per session) meet on TTh and on MW**, with these “hour and a half blocks” being available beginning at 9:00 a.m. and running until 9:00 p.m. (providing 16 such blocks). (See the revised *New Block Schedule Chart*.) None of these courses will be scheduled on Fridays.

As requested by the majority of faculty and students surveyed, the number of twice-a-week course blocks will be greatly increased and, as requested, will be available throughout the day, not just in the afternoons and evenings. For pedagogical reasons, we believe these blocks will be most suitable for a majority of our courses at Brandeis, in particular seminars, studios, and some lab courses.

- c. We recommend the **use of the *New Block Schedule Chart* included above**. This revised system will work on a model of interchangeable “*Lego*” blocks in which different class lengths may be constructed by combining blocks, with a minimum amount of overlap and inconsistencies between blocks. For example, two 80-minute blocks can be combined to make a 160-minute or “three-hour” block. These combinations can be done on MTWThF and would provide 11 possible, once-a-week, “three hour” blocks. Such blocks would be available throughout the day from 9:00 a.m. until 9:00 p.m. and, we believe, would be

most suitable for very advanced seminars, graduate courses, and lab and studio courses. In addition, other non-standard combinations could be utilized. (See the revised *New Block Schedule Chart* explanation above and discussions later in this report.)

We believe the revised Block Schedule is more logical and much simpler to follow and use than the current Block Schedule. It allows for more adaptive scheduling of non-standard courses without disrupting the block schedule. For example, it can allow for courses meeting four times per week, courses meeting for a one-hour class and a two-hour class each week, and for scheduling non-standard experiential learning sessions. It also spreads out the twice-a-week and once-a-week sessions throughout the day. And it provides more convenient starting and ending times that work with the commuter train schedule, particularly for evening courses. The revised *New Block Schedule Chart* shows some blank, non-used blocks, which are necessary to make all the blocks fit with minimum overlap, and some blocks whose use will require permission of the Registrar to avoid scheduling conflicts; however, those blocks can be used for some non-standard courses, as noted above and in later discussions in this report. (See the revised *New Block Schedule Chart* explanation.)

- d. We recommend the **use of a full schedule of time blocks on Thursday afternoons and evenings, and ending all regularly scheduled courses at 2:00 p.m. on Fridays.** One of the greatest constraints we have in determining our schedule is a dearth of available classrooms, particularly in the sizes and configurations needed for the majority of our courses.

By freeing Thursday afternoons for scheduling additional twice-a-week and once-a-week time blocks we can, to a much greater extent, unpack our scheduling logjams. In addition, many faculty members and students requested that classes not be scheduled Friday afternoons to allow for religious observance not only of many Jewish members of our community but of Muslim members of our community as well. Additionally, many people noted that having Friday afternoons free would be advantageous for faculty and students attending colloquia and other events in the greater Boston community, professional conferences, and involvement in off-campus research and internship activities, and for some it would allow easier scheduling of colloquia at Brandeis. Although no regular blocks for classes would be available on Fridays after 2:00 p.m., some units could still utilize this time for courses scheduled at non-standard times (e.g., IBS, Heller School, and experiential learning courses).

Accompanying these changes, we recommend that the administration reschedule the regular Faculty Meeting from Thursday afternoons to Friday afternoons (e.g., from 2:00 to 3:30 p.m.). We believe this change would be a better utilization of our entire schedule, including Friday afternoons. Even if Faculty meetings were still held on Thursday afternoons, we would recommend that we allow courses to be held during those times so that the value of unpacking our schedule is not held hostage by the faculty meetings. The number of faculty members who would be affected by overlapping faculty meetings would be quite small. (This change would probably require a change in the Faculty Handbook and thus approval of the faculty.)

2. Class Starting Times

We recommend that **all classes begin on the hour or half hour and end 10 minutes before the hour or half hour** (e.g., 9:00 a.m. to 9:50 a.m.; 10:30 a.m. to 11:50 a.m.).

The current practice of beginning 10 minutes after the hour is unusual and does not match the schedules kept by the vast majority of schools in our greater community, the starting time for other activities and meetings in the greater community, and even the administrative meetings and appointments and work schedules used at Brandeis. Thus, we have developed an unusual culture referred to as “Brandeis time.” The change would bring us in line with the administration and with meetings held at Brandeis, as well as with the schedules in the greater community. It would facilitate the ability of Brandeis students and other students in the consortium of schools to coordinate schedules, of faculty and administrative staff to coordinate meetings, of students to make work-study appointments and other work schedules, and it would eliminate the need to think about and avoid confusion due to “Brandeis time.” Although the entire community would need to adjust to the new schedule, there would be no loss in the amount of class time or time between classes.

Guidelines for Departments and Administrators

The following guidelines are presented as recommendations that departments and units could voluntarily follow to provide better and more effective utilization of the Brandeis schedule. We don't see these recommendations as needing legislation.

a. Types of classes to schedule in each block

The committee recommends that guidelines be placed on which types of courses should be scheduled in each type of block. Committee members believed that introductory and large enrollment courses where most of the teaching is done in a lecture-style were best suited to being taught in 50 minute blocks, 3 times a week; seminars where classroom interactions are based on discussions and student presentations were best suited to 80 minute blocks, twice a week; and that only very advanced undergraduate seminars and graduate seminars (and studio and lab courses) should be allowed to schedule in the once a week time blocks. Allowances would be made for the adjunct faculty, where instructor availability can be an issue (this is particularly important for IBS and Heller), as well as allowing for some flexibility in individual circumstances for regular faculty.

b. Coordination of courses and classrooms

The committee recommends that the scheduling of large enrollment and introductory classes be more fully controlled by the Registrar's office. The new block system reduces slightly the number of 3 day a week blocks and increases the overlap between blocks in a few instances, thus creating more competition and potential scheduling conflicts, which will require more centralization of scheduling for a few courses. Given the competition for finite classroom resources and the need to maintain as much choice as possible for students, it is necessary to balance the class schedule across departments, and this will require further centralization. Note also that future plans envisage the possibility of increased enrollments with slightly

fewer classes, which will increase the pressure on our classrooms and exacerbate the existing mismatch between class size and classroom size.

c. Blocks with 2hr/1hr classes

There are a number of situations in which alternative scheduling of the three class hours per week might be useful. For example, in classes with an on-campus, experiential component, the traditional course schedules do not always work effectively. Both the one-hour and the one-and-a-half-hour class formats are too short for many types of experiential learning, while the three-hour class format can be problematic because of the infrequency of meetings (if one week is an experiential class, then there is a two week gap between classroom sessions, which may be too long).

A possible solution to these problems would be to have a split format, with one class session per week being two hours long, and the other session being one hour long. The two-hour class gives more flexibility for experiential learning (assuming that it is on campus and there is no travel time involved), while still affording an additional weekly hour-long class to avoid long gaps between classroom sessions.

A further alternative would be to offer an extra hour or two per week for a class. Again, this would be most useful in experiential classes. Some possible models include: two one-hour classes plus one two-hour class per week; two one-hour classes plus one three-hour class (especially good for off-campus trips and courses that really need labs, including certain art and science courses); two two-hour classes.

Clearly, all these different options would have to fit within the classroom requirements of the university, as they would require more classroom time than normal. Courses with alternative schedules could take place early or late in the day when classroom usage is lower.

d. Increased utilization of 8:00 a.m. classes

Although the Committee does not anticipate extensive use of the 8:00 a.m. to 9:00 a.m. hour, we want departments and programs to be aware that this early block has not been eliminated. It is labeled as Block A in the current block system (Monday through Friday) and Block A is retained in the proposed revision. Since this is expected to be a low use time, it is reasonable to use any combination of days from 8:00 a.m. - 9:00 a.m. for a scheduled course.

Our surveys have suggested that most students prefer not to have classes at that early morning hour, but some departments have been using Block A successfully for required courses and for popular courses. In addition some classes might require a fourth or even a fifth hour, and Block A provides that option. Finally, occasionally departments and programs make arrangements through the Registrar's Office to begin a "9:00 a.m." class at 8:30 a.m. and teach it two times a week, Monday/Wednesday. This would eliminate a potential conflict with a "10:00 a.m." class meeting MWF for one hour — since an hour and a half MW class in the "normal block" 9:00 a.m. - 10:30 a.m. would overlap a class beginning at 10:00 a.m.

e. Language block classes

For three-hour courses that meet twice a week, this new schedule creates 80-minute morning blocks (B1 and C1) on Monday and Wednesday; these blocks are not available to us now. Classes meeting three times a week on this new MWF schedule will allow more time for students to prepare their course work because they will not have classes back-to-back on Wednesday and Thursday. For four-hour courses that meet four times a week, the proposed schedule includes blocks starting at 8:00am, 9:00am 11:00am, 12:00pm and 1:30pm and creates new late afternoon blocks (LK1 meets MTWTh 3-3:50, and LL1 meets MTWTh 4:30-5:20). The gaps in the course schedule (MW 10-11; MW 2-3) (see the proposed New Block Schedule) make room for office hours during the day.

f. Some science lab sessions in the morning on Tuesdays or Thursdays

There are a number of co-curricular activities for students that can interfere with standard science lab course times. The labs typically have scheduled sessions that start somewhere between 1:00 p.m. and 2:00 p.m. and end between 4:00 p.m. and 5:30 p.m. As a result, athletes and students involved in a wide range of other activities often have weekly conflicts between their labs and their athletic or co-curricular activities. The rooms in which labs are given are typically free during the morning, so it is possible for some basic science labs to take place on either Tuesday or Thursday mornings, perhaps from 8:30 a.m. to noon. (The intro science lectures with which the labs are associated typically meet during three one-hour blocks/week, so Monday, Wednesday, and Friday would not work for morning labs).

g. Creative arts 6hr/week schedule

In the School of Creative Arts, most studio and performance courses are best taught in 1 ½, 2 or 3 hour blocks, meeting two or three times a week. The extended hours allow ample time for rehearsing, setting up materials, or cleaning-up. Painting and Sculpture classes, for example, meet 6 hours a week, for two 3 hour blocks. Because Fine Arts, Music and Theater classes meet in designated spaces within their buildings, they are not assigned to classrooms by the Registrar's Office. But if not scheduled carefully, these long classes interfere with too many other university classes in a student's schedule, especially when the student is also taking a science lab or a seminar.

Under the proposed *New Block Schedule*, there are more options for scheduling 1 ½, 2 and 3 hour classes that meet more than one day a week. 1 ½ hour class blocks would now be available all day on both MW and TTh. The opening up of Thursday afternoons will allow more instructors to schedule long TTh afternoon studio classes as an alternative to the over-scheduled MW afternoons, or the unpopular TF afternoon. Under the proposed *New Block Schedule*, many long blocks can be built from smaller ones with minimal overlap of other classes, and there are viable options for offering 3 hour classes earlier in the day. On MW or TTh, three hour studio classes could be scheduled from early morning until late afternoon, overlapping only two standard blocks. The studios and rehearsal spaces will be used more efficiently, and students will have increased options for fitting creative arts classes into their academic schedule.

Strategies to Achieve Equity in Course Scheduling

These strategies were gleaned from our discussions with department and program administrators, and from comments on the surveys. Members of our committee believe that the block selected for a course should be based first on pedagogical principles (e.g., discussion based courses in two 80- minute blocks, introductory lecture and quantitative courses in three 50- minute blocks), and not solely on the preference and convenience of the instructor.

In those departments that seem to achieve the most equity in course scheduling, the chair is fully involved in helping all faculty members understand and agree to departmental scheduling policies that ensure fairness. Academic administrators who receive support from their chairs are better able to balance competing requests for specific time blocks.

The person in a department or program who is responsible for scheduling courses may wish to review three years of block assignments to note the teaching patterns of departmental faculty and determine if adjustments to course scheduling need to be made. In a few departments, tenured senior faculty appear to feel that they have earned the right to teach in their preferred teaching blocks, thus requiring others to “teach around them,” sometimes leaving the least desirable teaching slots to new assistant professors, whose enrollments then suffer.

Several departments report utilizing a rotation system in scheduling their courses. For example, a faculty member who is assigned a “prime” block in one semester must teach in a different block in the following semester. Or, a faculty member who teaches on TF (or Thursday under the proposed system) one semester must teach on MW the following semester. Some departments ask faculty who teach in a prime block to also teach in another less desirable block each semester. In one department, all faculty rotate teaching in the 9:00 a.m. time block.

To improve scheduling coordination among and between departments and programs, we recommend that the Office of the University Registrar offer online instructions about how departments and programs can view the scheduling plans of other departments and programs in MAAX (Multipurpose Academic Advising eXpert) early on in the planning process. Course information from other departments and programs is available to academic administrators as soon as it is entered into MAAX, a fact that is still little known. This resource can be used as a planning and communication tool across departments and programs to help coordinate courses across departments that often cause conflicts for students.

In addition, as early as possible and ideally before December scheduling deadlines, interdepartmental program chairs and administrators could work with program faculty and their departmental administrators to gather course information about program electives. Program chairs could then work with both the instructors and their home departments to develop a schedule with minimal conflicts and with all offerings accurately represented.

Regarding other best practices for scheduling, some departments schedule required or gateway courses, taught in rotation by different professors, at less popular times, such as 9:00 a.m. Required courses are scheduled first, followed by the scheduling of electives. Departments may also wish to review the blocks of courses needed by students who frequently double major in

specific programs/departments, and review the blocks assigned to large lecture courses in other departments and programs (e.g., Psychology, Anthropology, Economics, Chemistry). Large science courses may also wish to rotate their blocks across departments and within the School of Science.

The Dean of Arts and Sciences should remind chairs and administrators about these options, and strongly support chairs who attempt to follow these strategies.

Appendices

- A. Brandeis University: Report of Classroom Utilization Fall 2007
- B. Summary of Survey of Faculty, Students, and Staff
- C. Summary of Scheduling Practices at Other Institutions

Appendix A

Brandeis University: Report of Classroom Utilization Fall 2007

In the Fall of 2007, 855 classes were scheduled in classrooms.¹ An additional 139 weekly academic events, such as discussion sections, dept. colloquia, tutoring, etc. were scheduled in classrooms for the Fall term. These classes and events met for a total of 1,882 hours each week.

We have excluded all academic events that met sporadically (such as a one-time lecture or review session). We have not attempted to capture the use of classrooms in the evenings and weekends for student activities and outside groups scheduled through Conference and Events Services. *Thus the overall utilization of classrooms is actually higher than what is reported here.*

The generally accepted target for utilization is that a classroom should be scheduled 67% of the time, and that 70% of the seats in the room will be filled. This report focuses on room utilization (the amount of time a classroom is scheduled) and does not attempt to capture seat utilization. The 67% target is viewed as ideal as it builds in time for rooms to be cleaned or re-set, allows for flexibility in changing room assignments as enrollments fluctuate at the start of the semester, and allows for the scheduling of ad hoc events during the semester.

For Fall 2007 a total of 142 rooms were used; however, many of these classrooms are specialized and/or not available for general use, e.g., labs, studios, meeting rooms under dept. control. For this study we have excluded such rooms and the classes/events assigned to those rooms (a full list of the 78 exclusions is in Appendix 1). The remaining 64 general university classrooms (fully listed in Tables 4 and 5) have a variety of issues associated with them that affect scheduling and utilization. A very important issue being that only 21 of these rooms can be considered handicapped-accessible and only 11 of these can be considered truly fully accessible.

Based on the figures in the attached tables (2-5), the University has a barely adequate supply of general classrooms. We face over-utilization throughout the 9-5 day on Mondays and Wednesdays; and under utilization on Thursday and Friday in the late afternoons. This is an obvious artifact of our particular block system, but all universities find that students prefer courses starting no earlier than 10am and that faculty prefer teaching to be completed by 5pm. Table 1 below shows in the broadest terms the utilization of the 64 classrooms. The table gives the total number of actual classroom minutes over the total schedulable minutes for the given day of the week broken out in two time frames: all day (8am to 11pm) and peak-time (9am to 5pm).

¹ Additional classes, such as independent studies, were scheduled, but without a specific meeting location and are excluded from this study.

Table 1

Total minutes scheduled / total minutes available - 64 General University Classrooms

	M	T	W	R	F*	M-F
Class-time minutes: 8am-11pm	25850	22680	27410	22560	14400	112900
Total Available min. 8am-11pm	56960	56960	56960	56960	32000	259840
% utilized 8am-11pm	45%	40%	48%	40%	45%	43%
Class-time minutes: 9am-5pm	20790	17010	21210	18060	14220	91290
Total Avail. Min. 9-5	30720	30720	30720	30720	28160	151040
% utilized 9am-5pm	68%	55%	69%	59%	50%	60%

**Friday has fewer available minutes as regular classes are not scheduled beyond 4:30pm*

Table 1 shows that Mondays and Wednesdays during the 9-5 time range are over-utilized, the other days are under-utilized and that averaging across the week these classrooms are in the 60% range. The various ad hoc events that are not included will raise the actual utilization rates higher. While we think it is fair to say that during the 9-5 time frame we are fully utilizing our classrooms, this bird’s-eye view hides important details and challenges that we face.

Table 2 (attached) shows the count of classes in session at the attested starting times for the semester, along with the percentage of the 64 rooms that those classes represent. Full- and over-utilizations are highlighted in red (67% and above), those nearing full-utilization in yellow (60-66%) where the addition of just a few classes could move that time slot into full/over utilization. In addition to the Monday/Wednesday peaks, this table shows that the actual highest peak in usage is Mon/Wed/Thurs 10am to 11am, with additional peaks on Tuesday and Friday 11am to 12pm.

Accessibility Issues

Table 3 (attached) focuses on the classrooms that are handicapped-accessible. As noted before there are 21 such classrooms, however all are not created equal and we consider only 11 of these to be fully accessible. For a room to be fully accessible, there must not only be actual access to the classroom, but also parking near the building and accessible bathrooms on the same level as the classrooms. Setting aside the fine distinctions in accessibility, Table 3 looks at all 21 rooms and provides counts and percentage of utilization. It is clear that during peak 9-5 hours these rooms are fully and frequently over-utilized. During the specific peak hours M/W/R 10am-11am we see 95% utilization, and T/F 11am to 12pm we see 90% utilization.

The over-utilization (over-reliance) that we place on these rooms creates real challenges for scheduling classrooms for courses that are being taken by students, or being taught by faculty, with mobility issues. Both situations exist on campus and depending on the number of such students/faculty and what majors they are associated with, it can be impossible to satisfy all. Our office works closely with these students and faculty to try and arrange courses and classrooms that are close to each other – physically and temporally. While this can result in distortions in the scheduling patterns it is often vitally important to schedule classes back-to-back in the same location or building to accommodate these situations.

In Table 4 (attached) the classrooms that are fully accessible are marked with “HP+” in the leftmost column, and those that are accessible but not fully are marked as “HP-“. A very important point is that none of the HP+ rooms are on the hill – only rooms on the first floor of Olin-Sang and Lown are accessible, but there is no parking near the buildings and no accessible bathroom on the same floor as the classrooms. The HP+ rooms are clustered at mid-campus with 5 in Brown / Schwartz / Pearlman and 2 in Volen, with the others being at opposite ends of the campus: 2 in Lemberg and 1 in ASAC (behind Heller), the final HP+ room is Pollack Auditorium which is slated to be gone due to construction. So we are very tightly confined on where we can attempt to create the physically close scheduling these students and faculty need.

Over-/Under-Utilization

An examination of Table 4 highlights further issues for the University. Note that there is quite a bit of “lumpiness” in the distribution of utilization rates, with the same buildings and rooms showing over-utilization (e.g., Golding, Shiffman) or under-utilization (Rabb, Math on T/F, Golding 101 and 110) day after day, throughout the week.

Over-utilization is often the result of the rooms being the “best” in terms of size/fit, equipment, and location. Fit is important as there is a mismatch between our class sizes and our classroom sizes as currently configured. There would be even more of a mismatch if classrooms were re-configured to be right-sized via reductions in seat counts. Location is an important factor as we attempt to arrange for physically close classrooms when faculty are teaching classes back-to-back (not unusual with adjunct faculty). This is not simply for faculty convenience, as it allows students time to interact with instructors when they do not have to rush off to their next class in a distant building.

Conversely, under-utilization occurs when classrooms are sub-standard (or out of standard):

- Rabb classrooms are very small with the largest holding 13 students in a very tight seating arrangement, also due to the building orientation rooms are either too hot or too cold and the HVAC can not ameliorate the conditions;
- Gerstenzang 123 is the largest classroom on campus (300) and so is much too large for the majority of classes and is therefore under-utilized;
- Golding 110, while a large room with a good location, is under-utilized as the equipment is older, the seating is tired and worn, acoustics are not good, and the room has continual HVAC problems;
- Schwartz Auditorium (Schwartz 106) is similarly under-used even though large and centrally located (and HP+) and that is simply because the room is poorly designed and is torn

between being used as a classroom and as a performance space for student theater productions and so does neither well;

- Goldman-Schwartz 115 has the lowest utilization rates of any general classroom and this is due to its location on a far end of campus and its design which is really only suitable for FA courses².

Growth and Construction

Our student body has grown (in 1997 we had a total of 4276 students, while in 2007 we had 5333) – the effect of this growth is particularly visible in the classroom utilization rates in IBS, where headcounts went from 112 in 1997 to 443 in 2007. The classrooms that are in Lemberg/Sachar are seriously over-utilized due to the growth in the IBS master's programs and the popularity of the undergraduate Economics major: in some cases they are hitting 100% utilization on Mondays and Wednesdays, 94% on Tuesdays/Fridays. Table 5 shows that this over-utilization in the Lemberg/Sachar areas is not just a factor in the 9-5 timeframe, but is still present when looking across the entire day (8am-11pm), as IBS runs both early morning and evening classes.

Construction is taking a toll on available classrooms with three classrooms coming off-line for Spring 2008 driving utilization rates higher. Science Phase 1 has taken one 50 seat classroom off-line (Kosow 116) and Phase 2 will take other classrooms in Kalman. When Phase 1 opens the two 40-seat classrooms being added will replace what has been lost, but there will be no net gain in seats (though we ultimately expect the new rooms to be much more useful). Two classrooms in Goldsmith (100 and 101) have been adversely affected by construction of the Science Center and are currently off-line due to HVAC noise. We do not yet have a time-line for when/if they will be restored to use.

Conclusions

It is important to remember that the utilization rates given in this study are incomplete – we do not include events scheduled through Conference and Events Services on evenings and weekends, nor do we factor in the various ad hoc academic events occurring during the day (lectures, reviews, speakers, job talks). From a bird's-eye view it is safe to say that we are fully utilizing classrooms, while a closer view shows that we are seriously over-using some rooms and under-utilizing others. From either view the University cannot afford to lose classroom space without having comparable replacement classrooms created **before** the old classrooms are taken. New classrooms should be sized to give flexibility (upper 20's – 40 seat range) and HP+ accessibility. As new classrooms are built (in the Mandel Center) then we can right-size more of our existing classrooms and turn over some of the under-utilized classrooms for other uses (e.g., some of the Rabb classrooms might better be turned into offices). Other strategies would be to invest in upgrading the larger classrooms that are under-used to make them more useable. Candidates for this would be Golding 110 and Schwartz Auditorium.

² In reality this classroom should have been excluded but since it is nominally university scheduled we decided to include it. If it were excluded, utilization rates would be higher.

Appendix 1

Classrooms Excluded from the Fall 2007 report

Building	Room	Reason	Cap.	Building	Room	Reason	Cap.	
Abr.Shapiro	ASAC_124	EDUC controlled		Library	LIBRY_121	Music dedicated	14	
	ASAC_204	EDUC controlled			LIBRY_230	computer cluster	20	
Kosow	BCHM_116	eliminated classrm	50	Gosman	LNSY_300	pool		
Bassine	BIOL_251	Biology controlled	20	Goldsmith	MATH_117	MATH controlled	31	
Brown	BRWN_213	ANTH lab	20		MATH_209	MATH controlled	20	
off-site	EMC	off-site Rabb crs			MATH_300	MATH controlled		
Epstein	EPSTEIN_WR	WMGS controlled		Slosberg	MUS_107	Music dedicated	221	
Farber Lib.	FARBR_101A	Computer cluster	20		MUS_211	Music dedicated	18	
Goldman-Schwartz	G-S_115A	FA controlled			MUS_212	Music dedicated	67	
	G-S_121	FA studio			MUS_215	Music dedicated	19	
	G-S_124	FA studio			MUS_227	Music dedicated	14	
	G-S_126	FA studio			MUS_231	Music dedicated		
	G-S_130	FA studio		OldSouth St	OLDSOUTH_1	Rabb controlled	15	
Gosman	GYM_009	PE		Abelson	PHYS_122	PHYS lab		
	GYM_011	PE			PHYS_229	PHYS controlled	25	
	GYM_028	PE			PHYS_340	PHYS controlled		
	GYM_101	PE			Pollack	POLL_007	FA dedicated	15
		GYM_191	PE		Prospect St	PROSP_STDO	FA studio	
		GYM_251	PE				AAAS/WGS lounge	
		GYM_261	PE		Rabb	RABB_119	PHIL controlled	21
	GYM_400	PE			RABB_338			
Gerstenzang	GZNG_006	Lab		Sachar	SACR_105	IBS controlled	24	
Heller	HELR_163	Heller controlled	36	Heller	SACR_117	Silver/Wasserman	242	
	HELR_G053	Heller controlled	18		SCHNEID_G1	Heller controlled	46	
	HELR_G054	Heller controlled	14		SCHNEID_G2	Heller controlled	45	
		HELR_G055	Heller controlled		14	SCHNEID_G3	Heller controlled	45
		HELR_G144	Heller controlled	12		SCHNEID_G4	Heller but use E,F,J	76
					Shiffman	SHIF_002	language cluster	20
Intercult Ctr	ICC_103	Student Activities	19		SHIF_219	AV room	89	
Kalman	KALM_001	lab		Spingold	SPIN_104	THA dedicated		
	KALM_127	GENC controlled	25		SPIN_111	THA dedicated		
	KALM_201	lab			SPIN_141	THA dedicated		
	KALM_210	lab			SPIN_143	THA dedicated		
	KALM_211	lab			SPIN_152	THA dedicated		
	KALM_213	obstructed view	25		SPIN_205	THA dedicated		
	KALM_223	lab			SPIN_206	THA dedicated		
	KALM_224	lab			SPIN_215	THA dedicated		
	KALM_313	lab			SPIN_218	THA dedicated		
				SPIN_302B	THA dedicated			
				SPIN_302C	THA dedicated			
				Turner St	TURNER_60	THA dedicated		
				Village	VILLB_131	Student Activities	19	

Table 2

General University classrooms - Fall 2007 - 64 classrooms total

classes scheduled / % of classrooms used

Start-time	Mon	Tues	Wed	Thurs	Fri
08:10	7 / 11%	0 / 0%	7 / 11%	2 / 3%	0 / 0%
08:40	7 / 11%	4 / 6%	7 / 11%	2 / 3%	4 / 6%
09:10	39 / 61%	30 / 47%	39 / 61%	33 / 52%	28 / 44%
09:40	36 / 56%	31 / 48%	36 / 56%	33 / 52%	29 / 45%
10:10	52 / 81%	31 / 48%	51 / 80%	51 / 80%	29 / 45%
10:40	52 / 81%	41 / 64%	51 / 80%	51 / 80%	40 / 62%
11:10	42 / 66%	47 / 73%	41 / 64%	40 / 62%	44 / 69%
11:40	42 / 66%	47 / 73%	41 / 64%	40 / 62%	44 / 69%
12:10	46 / 72%	33 / 52%	44 / 69%	42 / 66%	39 / 61%
12:40	46 / 72%	38 / 59%	44 / 69%	42 / 66%	39 / 61%
13:10	44 / 69%	36 / 56%	44 / 69%	41 / 64%	30 / 47%
13:30	44 / 69%	1 / 2%	44 / 69%	41 / 64%	0 / 0%
13:40	44 / 69%	37 / 58%	44 / 69%	42 / 66%	27 / 42%
14:10	44 / 69%	36 / 56%	45 / 70%	16 / 25%	27 / 42%
14:40	44 / 69%	36 / 56%	45 / 70%	16 / 25%	27 / 42%
15:10	42 / 66%	36 / 56%	44 / 69%	16 / 25%	20 / 31%
15:40	35 / 55%	36 / 56%	32 / 50%	16 / 25%	19 / 30%
16:10	36 / 56%	36 / 56%	33 / 52%	15 / 23%	19 / 30%
16:40	30 / 47%	15 / 23%	33 / 52%	15 / 23%	0 / 0%
17:10	21 / 33%	15 / 23%	21 / 33%	14 / 22%	0 / 0%
17:25	21 / 33%	15 / 23%	21 / 33%	14 / 22%	0 / 0%
17:40	20 / 31%	15 / 23%	21 / 33%	14 / 22%	0 / 0%
18:00	22 / 34%	20 / 31%	26 / 41%	14 / 22%	0 / 0%

18:10	22 / 34%	22 / 34%	26 / 41%	14 / 22%	0 / 0%
18:40	14 / 22%	28 / 44%	22 / 34%	17 / 27%	0 / 0%
19:10	15 / 23%	28 / 44%	22 / 34%	17 / 27%	0 / 0%
19:40	14 / 22%	19 / 30%	21 / 33%	17 / 27%	0 / 0%
20:10	14 / 22%	16 / 25%	16 / 25%	12 / 19%	0 / 0%

67% and above is considered full utilization

**Averages
9am-4pm**

Mon	Tues	Wed	Thurs	Fri	M-F
67%	54%	66%	51%	48%	58%

Table 3**General University HP-accessible classrooms - Fall 2007 - 21 classrooms in total**

classes scheduled / % of HP classrooms used

Start-time	Mon	Tues	Wed	Thurs	Fri
08:10	4 / 19%	0 / 0%	4 / 19%	2 / 10%	0 / 0%
08:40	4 / 19%	0 / 0%	4 / 19%	2 / 10%	0 / 0%
09:10	12 / 57%	12 / 57%	12 / 57%	8 / 38%	12 / 57%
09:40	10 / 48%	14 / 67%	10 / 48%	8 / 38%	13 / 62%
10:10	20 / 95%	14 / 67%	20 / 95%	20 / 95%	13 / 62%
10:40	20 / 95%	18 / 86%	20 / 95%	20 / 95%	18 / 86%
11:10	16 / 76%	19 / 90%	16 / 76%	15 / 71%	19 / 90%
11:40	16 / 76%	19 / 90%	16 / 76%	15 / 71%	19 / 90%
12:10	14 / 67%	14 / 67%	14 / 67%	12 / 57%	14 / 67%
12:40	14 / 67%	15 / 71%	14 / 67%	12 / 57%	15 / 71%
13:10	15 / 71%	15 / 71%	15 / 71%	14 / 67%	13 / 62%
13:30	15 / 71%	1 / 5%	15 / 71%	14 / 67%	0 / 0%
13:40	15 / 71%	15 / 71%	15 / 71%	14 / 67%	12 / 57%
14:10	14 / 67%	14 / 67%	14 / 67%	2 / 10%	12 / 57%
14:40	14 / 67%	14 / 67%	14 / 67%	2 / 10%	12 / 57%
15:10	14 / 67%	16 / 76%	14 / 67%	3 / 14%	12 / 57%
15:40	12 / 57%	16 / 76%	13 / 62%	3 / 14%	11 / 52%
16:10	12 / 57%	16 / 76%	13 / 62%	3 / 14%	11 / 52%
16:40	12 / 57%	5 / 24%	13 / 62%	3 / 14%	0 / 0%
17:10	10 / 48%	8 / 38%	10 / 48%	7 / 33%	0 / 0%
17:25	10 / 48%	8 / 38%	10 / 48%	7 / 33%	0 / 0%
17:40	10 / 48%	8 / 38%	10 / 48%	7 / 33%	0 / 0%
18:00	10 / 48%	8 / 38%	10 / 48%	6 / 29%	0 / 0%
18:10	10 / 48%	9 / 43%	10 / 48%	6 / 29%	0 / 0%
18:40	7 / 33%	14 / 67%	11 / 52%	9 / 43%	0 / 0%
19:10	8 / 38%	14 / 67%	11 / 52%	9 / 43%	0 / 0%
19:40	7 / 33%	9 / 43%	10 / 48%	8 / 38%	0 / 0%
20:10	7 / 33%	7 / 33%	5 / 24%	5 / 24%	0 / 0%

67% and above is considered full utilization

Table 4**Classroom Utilization Fall 2007 from 9:00AM through 5:00PM**

HP access	classroom	M	T	W	R	F	Cap.
HP+	ASAC_209	88%	75%	88%	62%	38%	18
HP+	BRWN_115	62%	69%	100%	75%	56%	29
	BRWN_218	100%	44%	100%	88%	31%	24
	BRWN_224	75%	94%	75%	38%	56%	23
	BRWN_316	81%	62%	81%	75%	38%	35
	G-S_115	12%	0%	12%	12%	0%	30
	GOLD_101	50%	56%	50%	25%	56%	66
	GOLD_103	100%	81%	100%	100%	69%	28
	GOLD_107	100%	81%	100%	88%	38%	29
	GOLD_109	81%	81%	81%	88%	69%	36
	GOLD_110	56%	19%	56%	38%	19%	159
HP-	GZNG_121	81%	38%	81%	62%	31%	110
HP-	GZNG_122	69%	56%	69%	81%	56%	98
HP-	GZNG_123	38%	62%	38%	38%	19%	300
HP+	LEMBRG_054	75%	94%	75%	50%	94%	48
HP+	LEMBRG_055	75%	94%	75%	12%	94%	64
	LEMBRG_180	100%	81%	100%	81%	56%	77
	LOWN_002	88%	38%	88%	50%	50%	78
	LOWN_103	31%	56%	44%	25%	19%	19
HP-	LOWN_201	88%	69%	88%	62%	69%	46
	LOWN_202	38%	75%	38%	0%	38%	23
HP-	LOWN_203	88%	38%	88%	50%	25%	45
	LOWN_301	62%	56%	62%	75%	69%	56
	LOWN_302	56%	75%	56%	75%	38%	20
	MATH_100	100%	19%	100%	62%	19%	35
	MATH_101	69%	0%	69%	62%	19%	23
	MATH_116	69%	0%	69%	62%	0%	25
	MATH_226	62%	56%	62%	50%	56%	25
	MATH_317	81%	19%	81%	88%	19%	44
HP-	O-S_101	69%	38%	69%	50%	62%	206
HP-	O-S_104	100%	94%	100%	88%	94%	32
HP-	O-S_112	100%	75%	100%	88%	50%	35
HP-	O-S_116	12%	38%	62%	50%	50%	30
HP-	O-S_124	100%	94%	100%	62%	94%	38
	O-S_201	81%	69%	69%	75%	69%	32
	O-S_212	25%	50%	62%	62%	75%	30
HP+	PERL_113	50%	38%	12%	75%	38%	54
	PERL_202	25%	75%	75%	75%	75%	20
	PERL_203	50%	75%	50%	100%	38%	13
	PHYS_131	62%	44%	38%	38%	0%	106
	PHYS_239	62%	75%	62%	62%	56%	28
HP+	POLL_001	62%	56%	62%	25%	56%	112
	RABB_203	38%	31%	38%	0%	12%	9
	RABB_236	12%	50%	25%	12%	0%	12
	RABB_333	62%	25%	25%	0%	25%	13
	RABB_335	25%	12%	50%	25%	12%	12
	RABB_345	25%	75%	62%	50%	0%	11
	RABB_375	31%	12%	31%	31%	0%	11

	ROSN_118	88%	38%	75%	50%	38%	65
	SACR_116	100%	56%	100%	62%	56%	50
HP+	SCWZ_002	38%	69%	38%	50%	88%	25
HP+	SCWZ_003	81%	69%	69%	75%	75%	36
HP+	SCWZ_106	56%	19%	56%	50%	19%	236
	SHIF_120	100%	81%	100%	100%	88%	36
	SHIF_122	94%	69%	94%	62%	75%	35
	SHIF_123	100%	75%	100%	100%	44%	40
	SHIF_125	100%	75%	100%	100%	94%	35
	SHIF_201	69%	75%	69%	75%	75%	40
	SHIF_202	100%	62%	100%	100%	38%	35
	SHIF_216	81%	31%	81%	100%	38%	41
	SHIF_217	81%	25%	81%	75%	44%	37
	SHIF_218	31%	19%	31%	31%	19%	9
HP+	VOLN_105	75%	75%	38%	38%	75%	40
HP+	VOLN_106	69%	94%	69%	50%	56%	30

67% and above is considered full utilization

HP+ signifies full Handicapped Accessibility

HP- signifies lack of full accessibility - typically bathrooms or parking

Table 5**Classroom Utilization Fall 2007 from 8:00AM to 11:00PM**

HP access	classroom	M	T	W	R	F	Cap.
HP+	ASAC_209	47%	40%	47%	40%	20%	18
HP+	BRWN_115	44%	57%	74%	61%	30%	29
	BRWN_218	54%	34%	67%	47%	17%	24
	BRWN_224	51%	51%	51%	40%	30%	23
	BRWN_316	74%	54%	54%	61%	20%	35
	G-S_115	7%	0%	7%	7%	0%	30
	GOLD_101	51%	30%	37%	13%	30%	66
	GOLD_103	64%	54%	64%	64%	37%	28
	GOLD_107	64%	67%	64%	47%	20%	29
	GOLD_109	54%	44%	54%	47%	37%	36
	GOLD_110	37%	10%	30%	34%	10%	159
HP-	GZNG_121	51%	27%	64%	40%	17%	110
HP-	GZNG_122	37%	44%	44%	64%	30%	98
HP-	GZNG_123	27%	44%	37%	27%	10%	300
HP+	LEMBRG_054	78%	81%	78%	57%	51%	48
HP+	LEMBRG_055	78%	81%	78%	37%	51%	64
	LEMBRG_180	91%	71%	91%	71%	37%	77
	LOWN_002	47%	20%	47%	34%	27%	78
	LOWN_103	27%	30%	34%	13%	10%	19
HP-	LOWN_201	47%	57%	47%	34%	37%	46
	LOWN_202	20%	40%	20%	0%	20%	23
HP-	LOWN_203	57%	40%	71%	40%	13%	45
	LOWN_301	34%	30%	34%	40%	37%	56
	LOWN_302	40%	51%	40%	51%	20%	20
	MATH_100	74%	30%	74%	54%	10%	35
	MATH_101	37%	0%	37%	34%	10%	23
	MATH_116	37%	0%	37%	34%	0%	25
	MATH_226	34%	30%	34%	27%	30%	25
	MATH_317	64%	30%	64%	71%	10%	44
HP-	O-S_101	51%	34%	51%	40%	34%	206
HP-	O-S_104	64%	71%	64%	47%	51%	32
HP-	O-S_112	71%	40%	71%	61%	27%	35
HP-	O-S_116	7%	20%	40%	34%	27%	30
HP-	O-S_124	64%	71%	64%	54%	51%	38
	O-S_201	44%	57%	57%	40%	37%	32
	O-S_212	13%	27%	40%	34%	40%	30
HP+	PERL_113	27%	20%	7%	40%	20%	54
	PERL_202	13%	47%	40%	51%	40%	20
	PERL_203	27%	40%	27%	54%	20%	13
	PHYS_131	54%	30%	40%	34%	0%	106
	PHYS_239	40%	40%	54%	34%	30%	28
HP+	POLL_001	57%	30%	44%	13%	30%	112
	RABB_203	20%	17%	40%	0%	7%	9
	RABB_236	7%	27%	17%	7%	0%	12
	RABB_333	34%	13%	13%	0%	13%	13
	RABB_335	20%	13%	27%	20%	7%	12
	RABB_345	13%	40%	34%	27%	0%	11
	RABB_375	20%	7%	20%	24%	0%	11

	ROSN_118	54%	20%	40%	34%	20%	65
	SACR_116	91%	51%	91%	61%	30%	50
HP+	SCWZ_002	30%	37%	30%	27%	47%	25
HP+	SCWZ_003	64%	67%	57%	64%	40%	36
HP+	SCWZ_106	30%	10%	30%	27%	10%	236
	SHIF_120	54%	65%	75%	75%	51%	36
	SHIF_122	54%	57%	54%	34%	44%	35
	SHIF_123	54%	65%	75%	54%	24%	40
	SHIF_125	75%	61%	54%	54%	51%	35
	SHIF_201	51%	65%	37%	40%	40%	40
	SHIF_202	75%	58%	75%	75%	20%	35
	SHIF_216	44%	38%	65%	54%	24%	41
	SHIF_217	44%	35%	65%	62%	27%	37
	SHIF_218	17%	10%	30%	17%	10%	9
HP+	VOLN_105	47%	40%	20%	27%	40%	40
HP+	VOLN_106	47%	71%	47%	27%	30%	30

67% and above is considered full utilization

HP+ signifies full Handicapped Accessibility

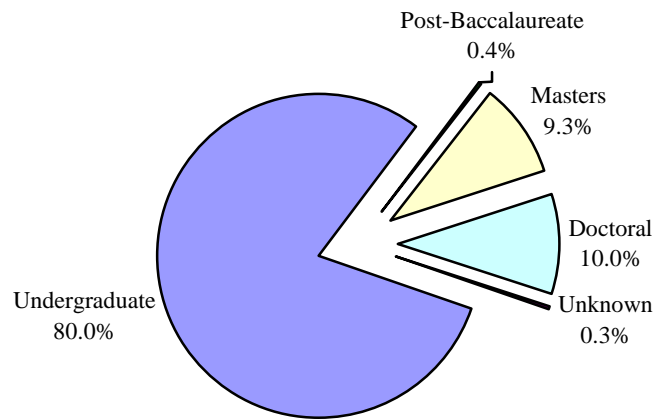
HP- signifies lack of full accessibility - typically bathrooms or parking

Appendix B
Summary of Survey of Faculty, Students, and Staff

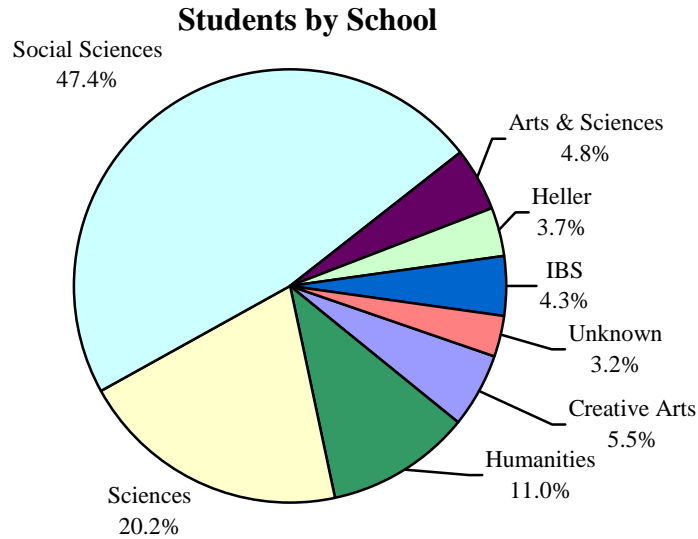
Respondents' Profile

During the spring 2008 semester, a survey was administered to students and faculty on the current block schedule and possible changes to it. 1,315 students responded to the survey, which represents 27.4% of the spring 2008 enrollment. Over one-half of the students (55%) responded that they have been at Brandeis two to three years with an additional 29% indicating that they had been at Brandeis one year or less. The overwhelming majority of respondents were undergraduates, as can be seen in the pie chart below.

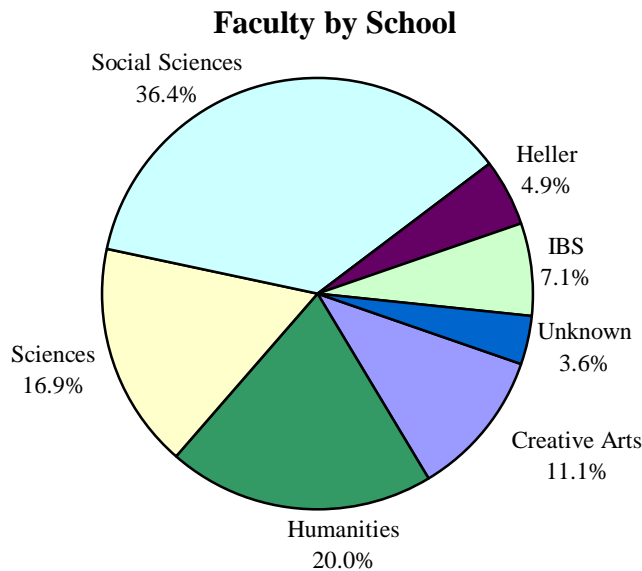
Students by Degree Level



One third of the students reported being affiliated with more than one school. The 5 most popular primary majors among undergraduates who responded were: Economics, Psychology, Biology, Health: Science, Society and Policy, and Politics. This corresponds closely to the number of declared majors for the semester. Graduate students within Heller and the International Business School account for 42% of all graduate student responses. Within the Graduate School of Arts and Sciences, Psychology was cited most often for a graduate program. The pie chart below shows the breakdown by school based on primary major/graduate program.



225 faculty members responded to the survey, which represents 40.9% of faculty (see pie charts for the breakdown by school and time). Eight-four percent of the respondents were full-time faculty, 15% part-time, and 1% did not answer. Slightly over one-half of the faculty (52%) responded that they were associated with more than one department or program.

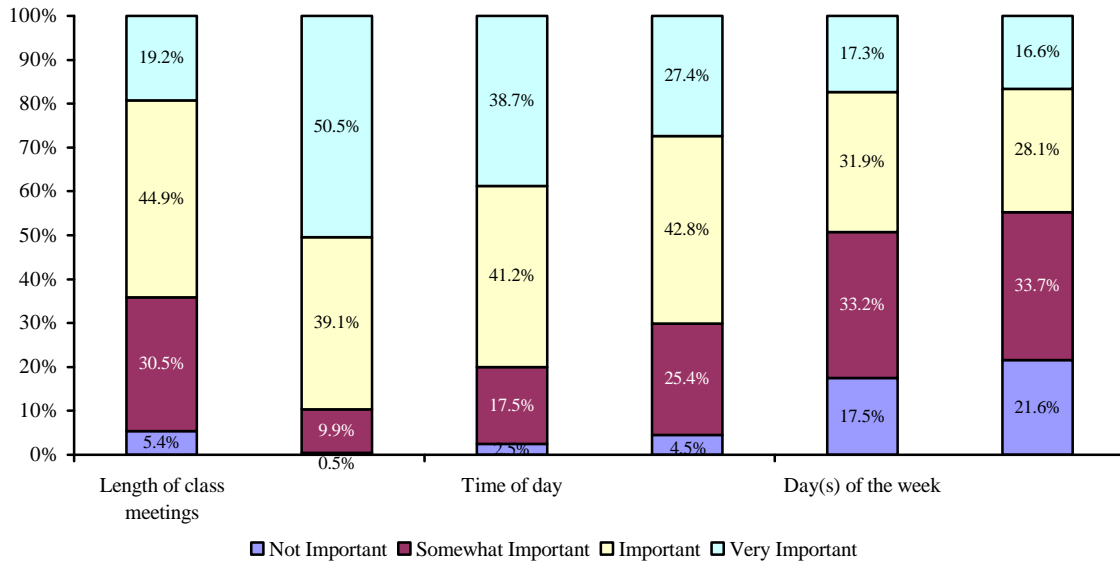


Use of Time and Space

Importance:

Students overwhelmingly felt that the time of the day that a class was taught was either important or very important to learning, and faculty also felt that the time of day was pedagogically important. The faculty however felt stronger that the length of class meeting was pedagogically

more important than students felt that it was to learning. Both faculty and students were almost evenly split on the pedagogical or learning importance of the day(s) of the week. In the next chart, the first column for each question is student responses and the second column is faculty responses.



Appropriateness

Students were almost evenly divided when asked if they ever had to take courses with class lengths or in spaces that were not well-suited to the course. Faculty had stronger feelings in responses to teaching courses with class lengths or in spaces that were not-well suited to the course.

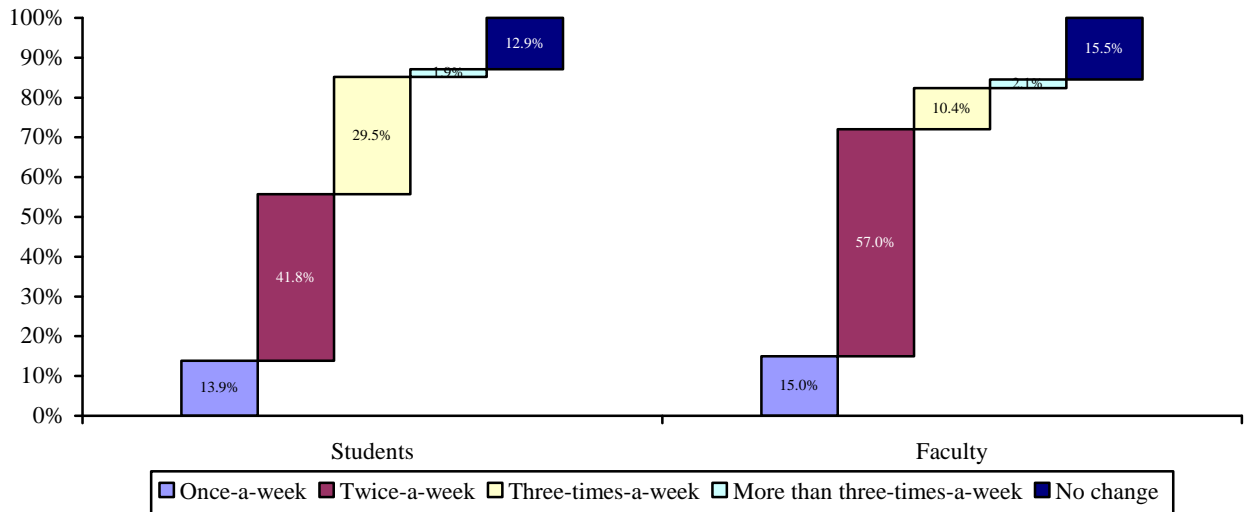
	Class lengths not well-suited to course		Spaces not well-suited to the course	
	Students	Faculty	Students	Faculty
Never	13.6%	34.2%	13.7%	21.4%
Rarely	32.4%	28.1%	32.5%	17.4%
Occasionally	48.1%	28.1%	43.7%	43.8%
Frequently	5.9%	9.5%	10.2%	17.4%

The faculty was also asked a couple of other questions about the appropriateness of their courses.

	Teach at times that were personally difficult	Combination of standard blocks
Never	30.3%	58.4%
Rarely	24.7%	7.0%
Occasionally	36.4%	16.8%
Frequently	8.6%	17.8%

Preferred Block Types

When asked what block types they would prefer to see more of, faculty strongly indicated that they wanted more twice-a-week class blocks. Students also wished to see more twice-a-week class blocks but also indicated a preference for more three-times-a-week classes. Students and faculty had almost the same preferences for more once-a-week classes as they did for no change in the preferred block types.



Importance

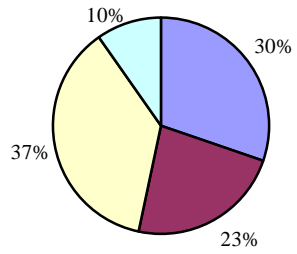
Students and faculty were asked to rank the importance of the time of day, day of week, quality of classroom space and facilities, and location. As can be seen in the table below, students and faculty did not agree on the ranking for time of day, day of week, or quality of classroom space and facilities but both ranked location as least important.

	Students		Faculty	
	Rank	%	Rank	%
Time of day	1	64.1%	2	35.2%
Day of week	2	49.1%	3	29.8%
Quality of classroom space and facilities	3	44.1%	1	40.3%
Location	4	55.9%	4	58.1%

Additional Faculty Questions

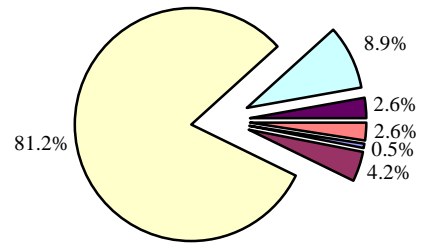
Faculty were also asked if they would like to be able to schedule classes at different times than the standard time blocks and with a nonstandard number of class hours that they believed would be pedagogically appropriate for their classes. Over one-half of the faculty responded they they never or rarely would like to be able to schedule classes differently than in the standard time blocks. Over 80% of the faculty felt that 3 hours a week was pedagogically appropriate for their classes. See the following graphs for all the responses.

Different from Standard Blocks



■ Never ■ Rarely ■ Occasionally ■ Frequently

Class Hours per Week



■ 1 hour ■ 2 hours ■ 3 hours ■ 4 hours ■ 5 hours ■ 6 hours

Specific Ideas for Changes to the Scheduling System

When asked to consider possible changes to the current block schedule, both students and faculty strongly supported eliminating Friday afternoon classes after 3 P.M., adding more twice-a-week blocks in the mornings, and eliminating morning time-blocks before 9 A.M. *Both students and faculty were generally opposed to confining classes to four days a week.* Students strongly supported more three-times-a-week blocks in the afternoon while most faculty had not considered this as a possibility; of the faculty who did express an opinion, they were also in support of this option. Students strongly opposed changing three-times-a-week classes from its current days to Monday/Wednesday/Friday and more evening classes while faculty were slightly supportive of these proposals. Slightly less than one-half the students (49.1%) opposed starting classes on the hour (or half-hour) and almost the same percentage of faculty (46.6%) had not considered this option. Faculty supported setting aside certain time-blocks for meetings, lectures, etc, while most students had not considered this option. See the table below for the full set of responses to each question about changes to the scheduling system.

		Students	Faculty
Change three-times-a-week classes from Monday/Wednesday/Thursday to Monday/Wednesday/Friday	Oppose ¹	67.5%	32.3%
	Support	21.8%	37.5%
	Not considered	10.7%	30.2%
Confine classes four days a week	Oppose	47.8%	54.1%
	Support	32.0%	22.7%
	Not considered	20.2%	23.2%
Eliminate Friday afternoon classes after 3 P.M.	Oppose	14.7%	28.5%
	Support	78.1%	50.8%
	Not considered	7.2%	20.7%
More twice-a-week blocks in the mornings	Oppose	24.5%	6.8%
	Support	54.4%	66.3%
	Not considered	21.1%	26.9%
More three-times-a-week blocks in the afternoon	Oppose	22.2%	23.6%
	Support	58.0%	31.9%
	Not considered	19.8%	44.5%
More evening classes	Oppose	55.1%	33.9%
	Support	34.4%	36.4%
	Not considered	10.5%	29.7%
Eliminate morning time-blocks before 9 A.M.	Oppose	16.1%	25.6%
	Support	76.9%	50.8%
	Not considered	7.0%	23.6%
Start on the hour (or half-hour) and end ten minutes before the hour (or half-hour)	Oppose	49.1%	19.2%
	Support	20.6%	34.2%
	Not considered	30.3%	46.6%
Set aside certain time-blocks for meetings, lectures, colloquia, etc. (with heavier use of	Oppose	19.7%	16.6%
	Support	39.9%	56.5%

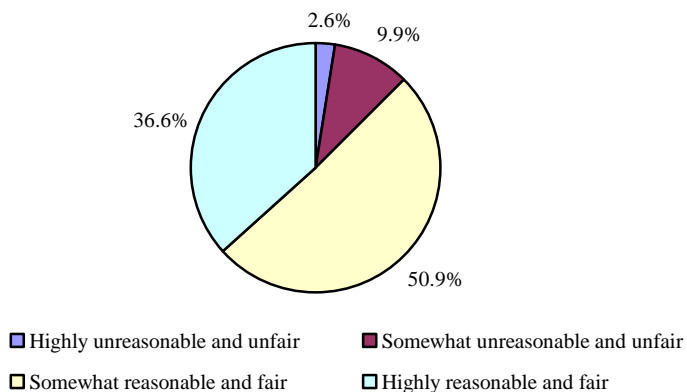
		Students	Faculty
the remaining time-blocks)?	Not considered	40.4%	26.9%

¹ The percentage for oppose includes those who answered oppose or strongly oppose while the percentage for support includes those who responded support or strongly support.

Scheduling Process

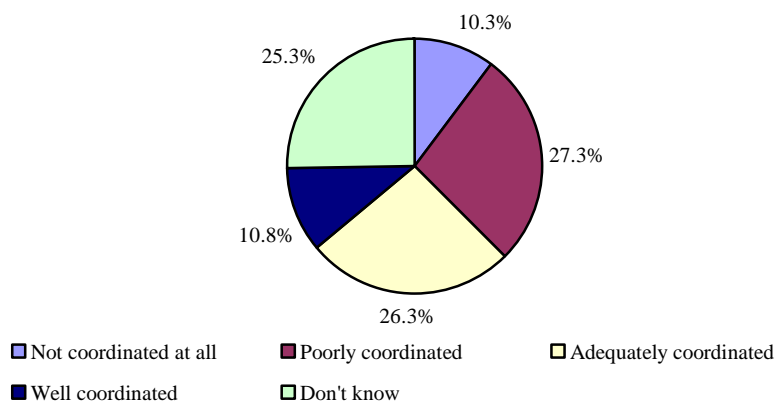
Faculty were also asked questions about the scheduling of courses within and across academic units and if there is need for standards to be established. Nearly 90% of faculty responded that the assignment of time blocks within their primary academic unit was somewhat or highly reasonable and fair.

Assignment of Time Blocks within Primary Academic Unit



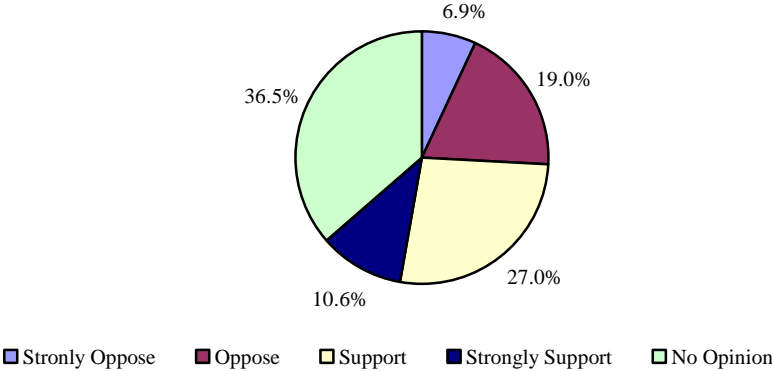
One-quarter of the faculty did not know how well coordinated the scheduling of required courses was among academic units. Of those who expressed an opinion, they were almost evenly split between believing there was some level of coordination and believing there was poor or no coordination.

Coordination among Academic Units in Scheduling Required Courses



Over one-third of the faculty did not have an opinion of whether there should be standard procedures for the allocation of time blocks within each academic unit. An almost equal number supported the idea of standard procedures, with a slightly smaller percentage opposed to the idea.

Standard Procedures for the Allocation of Time Blocks within each Academic Unit



Appendix C **Summary of Report of Scheduling Practices at Other Institutions**

The purpose of the study conducted by the University Leadership Council of The Advisory Board was to examine how university registrars implement block schedules and utilize classroom space. Questions focused on: schedule blocks, classroom utilization, special classes, events, schedule control, and software. The findings detailed in the report were drawn from interviews with the following institutions: Brown University, Portland State University, Columbia University, Rice University, Dartmouth College, Tufts University, Duke University, Washington University in St. Louis, Hofstra University, Wesleyan University, Johns Hopkins University, The College of William and Mary, and University of Michigan–Ann Arbor

Most universities use a conventional MWF/TTh block schedule, with the vast majority using a conventional block schedule with classes meeting for one hour MWF and one-and-a-half hours TTh. One-and-a-half hour twice-weekly classes within the MWF schedule present a common alternative. Within these blocks, courses are typically scheduled from around 8:00 to 17:00, with “primetime” occurring between 10:00 and 14:00. Early morning, late afternoon, and Friday classes are far less popular. Most institutions surveyed have distributional regulations that encourage or require faculty to use less crowded times so as not to overbook others.

Registrars typically control all or most of the “general use classrooms” (i.e., lecture halls and seminar rooms that can be used by any department). Other specialized spaces are controlled by departments or relevant schools within the university. Those surveyed indicate that a 70% utilization rate per classroom is a good target, but rates vary considerably.

Few registrars had special procedures for accommodating unusually long classes, such as labs, because individual departments generally control the specialized spaces in which they take place. Language classes are often accommodated by offering a block with four or five weekly meetings—sometimes nested within other blocks. Accommodations are generally not made for experiential learning.

Columbia schedules in such a way as to leave Fridays open for lectures, colloquia, faculty meetings, etc. Hofstra, Tufts, and Wesleyan designate time blocks for these types of events. Although the majority of other institutions surveyed said they had considered creating such a block, they have not been able to incorporate it successfully.

Typically a “federal” system is in place in which registrars control all or most general use classrooms with the remainder being owned by individual departments. The degree of registrar power varies from school to school, with some serving at the faculty’s pleasure and others wielding real power to resolve conflicts and bump or otherwise discipline faculty who disobey scheduling policies.

Addendum

As part of the Block Scheduling Committee's report and recommendations, we also considered the scheduling needs of the Rabb School of Continuing Studies and particularly the graduate professional programs, which hold many classes in the evening hours. The Rabb School's Division of Graduate Professional Studies has, for years, routinely used several classrooms and the computer lab in Shiffman Hall on a regular basis, Monday through Thursday evenings, over three terms year-round. The new, proposed block schedule will handle their courses as well as those from the other schools. In particular, there are blocks from 6:00-9:00 p.m. that can be used for three-hour classes or 1 ½ hour classes.