Presented to the Yale College faculty at the February 2007 faculty meeting

A number of persistent problems concerning the scheduling of courses in Yale College recur frequently. The Course of Study Committee has examined some of these problems and wishes to propose changes in the way courses are scheduled.

We have focused, in particular, on the following problems:

- 1. The demand on classrooms differs at different times of the week. At certain particularly popular times, we run out of suitable classrooms with the consequence that some courses are assigned marginal classrooms.
- 2. The size of the Yale campus makes it difficult for students (and sometimes instructors) to physically get from one classroom to another in the ten minutes passing time that is typically allowed between classes. This problem is especially noticeable when a student has consecutive classes on Science Hill and Central Campus.
- 3. Courses during the fall semester typically last for only twelve weeks and three days. Seminars that meet only once per week on Mondays or Tuesdays may meet only twelve times during the semester, instead of the pedagogically expected thirteen times. (The spring semester is exactly thirteen weeks).

## **Demand for classrooms**

Our study of how Yale classrooms are used dispels several common misconceptions about when classes are taught. Yale does not have a four-day week; many classes do in fact meet on Fridays, although few meet in the afternoons. With that exception, classrooms are well filled between the 9.30 and 4.00. Fewer classes, but still a respectable number, meet before and after that period. If one simply examines the raw numbers of classes taught in each timeslot, it is hard to see that there would be a problem.

The problems become obvious if one breaks down courses by size (see attachment). A simple example is presented by the ten courses with enrolments of more than 100 students that meet on Mondays and Wednesdays between 11.30 and 12.20. This may be contrasted with the fact that the Registrar controls only six lecture halls with capacity of over 100. Similarly, 22 courses with more than 40 but less than 100 students meet Mondays and Wednesdays between 10.30 and 11.20. The Registrar controls eleven lecture halls of appropriate size. The Registrar is able to find space for all these courses by borrowing rooms from the professional schools, departments, and other Yale entities, and also by scheduling courses in inappropriately sized classrooms (such as assigning lecture halls with a capacity in the hundreds to lecture courses with only a few dozen students).

This problem defies easy fixes. It would be possible to institute rigid rules for how many courses of different sizes may be taught at different hours, but we do not wish to pursue such a solution. Instead, we propose a few minor changes that should at least ameliorate the situation.

First, many of the decisions about when to schedule courses are made in the dark. Instructors typically have very little information about which time slots are particularly oversubscribed. When in the past the Registrar has pointed out that a particular timeslot was popular last semester, too many courses tend to migrate to another timeslot, so that this timeslot becomes a problem. Also, different departments have very different traditions as to how much the Director of Undergraduate Studies tries to distribute the department's offerings over the week. We feel that each department needs to be proactive about distributing its course offerings over the available time slots. After studying how our peer institutions manage course scheduling, we have concluded that a lot would be won if departments were recommended not to schedule more than ten percent of its offerings of each particular type of course (e.g., lectures, seminars) during any one time. Our study of how courses are scheduled suggests that this would be a small inconvenience for departments, while it would have a significant impact on course scheduling problems.

It might be difficult for departments to follow this recommendations for the simple fact that if a department wishes to know how a its courses the following year are distributed, that information is not readily available; it has to be manually compiled by each DUS office. This is a situation that needs to be changed. We feel that there is a need for a centrally organized web tool that would allow departments and programs to see how many courses they have scheduled at the same time in a given semester. This tool might not be unlike the Online Course Scheduling "calendar view" that students use to organize their schedules during each registration period. Until such time that such a tool has been developed, the Registrar's office will be monitoring and reporting on how courses are scheduled.

A problem in developing such a tool is that the information about which courses an individual instructor intends to teach is collected in different ways depending on whether the individual class has been taught before or not. When an instructor proposes a new class, she or he enters necessary information into the Online Course Proposal Form. The information then goes to, and is manipulated by, in turn, the relevant DUS, the Registrar, the Course of Study Committee, and the Yale Publications Office. For courses that have been taught before, the process is starkly different. Each DUS collects from colleagues this information in whatever way is traditional in the department. This information is then entered manually on printouts of last year's Yale College Bulletin, which then serve as proof sheets for next year's Bulletin in the Publications Office. At about two months before the start of a semester, this information is transferred from their computers into the Registrar's class database. We simply want to point out this problem without recommending any particular solution, although we suggest that the best solution might be to adapt the Online Course Proposal From to be able to handle also previously taught courses.

### The Committee moves

1. that no department or program schedule more than ten percent of its offerings of each particular type of course (e.g., lectures, seminars) during any one time, starting in the fall of 2007.

# Standard meeting times and passing time

In addition, we feel that a few minor adjustments of the Yale College Standard Time Pattern may slightly ameliorate the situation. The STP contains a few regulations for which we cannot imagine any reasonable reason; we believe that they are the unintended byproducts of previous adjustments of the schedule.

- 1. 50-minute classes meeting twice a week (+ plus a discussion section, time to be arranged) may at present be scheduled only MW and TTh. We suggest adding the option of teaching such classes also WF.
- 2. Similarly, 75-minute classes may at present begin at 9.00 only MW or TTh. We suggest adding the option of teaching such classes also WF.
- 3. 110-minute classes may at present begin at 9.30 only on T or Th. We suggest adding the option of teaching such classes at that time also on M, W, or F. (The Graduate School already allows this option.)

Additionally, we propose that the entire Faculty of Arts and Sciences (including the Graduate School of Arts and Sciences) adopts the same standard time pattern, since the entire Faculty draws on the same classroom pool. The time patterns are already very similar, so this will not, we feel, be an undue burden on the Graduate School. Graduate dean Jon Butler has indicated in underhand discussions that he concurs.

We also propose that courses will be allowed to meet at non-standard times only in exceptional circumstances which are predicated on pedagogical needs.

We further believe that it is essentially impossible to get from a classroom on Science Hill to a classroom on Central Campus in ten minutes or less. We believe that this is a greater problem during the mornings than during the afternoon, given the way that the science departments generally schedule their courses. We have the following proposals:

- 1. That passing times during the mornings are expanded to 15 minutes. This is relatively easy to do, by starting 50-minute classes with intervals of 65 minutes beginning at 8.20. Classes that last longer are nested within the new schedule. Please refer to the attached new Standard Time Pattern for details.
- 2. That the shuttle service between Science Hill and Central Campus is further enhanced beyond the recent improvements.
- 3. That more opportunities for "mixed scheduling" are explored, such as more elementary language courses on Science Hill and more science lectures on Central Campus.
- 4. That each instructor pays careful attention to ending class on time.
- 5. That if this adjustment of the schedule is successful, and if there is need for 15 minutes of passing time in the afternoon, a similar schedule is adopted also for the afternoons.

## Therefore, the Committee moves

1. that the Faculty of Arts and Sciences adopt the Standard time pattern outlined in Appendix A, from the fall of 2007.

## Fall semester

At present, the fall semester is shorter than the spring semester. While classes meet during the latter for a full thirteen weeks, the former contain twelve weeks plus a Wednesday, a Thursday, and a Friday. The pedagogical disadvantages of this schedule are, we believe, obvious. We feel that the model that was introduced a few years ago to accommodate a holiday for Martin Luther King Day in the spring semester may serve as a template for a solution to this problem. In the fall terms, teaching starts (under the current arrangements) on a Wednesday and ends on a Friday. It is not practicable to extend the semester in either end. We suggest, therefore, that the teaching part of the semester is extended to the Monday and Tuesday of the reading period, to make up for the two missing day during the first week.

This solution would guarantee thirteen full weeks of course work for courses that are not ordinarily taught during Reading period (as many language and science courses are). It has the disadvantage of removing time from the Reading period, but this does not seem to have had any great adverse effects during the spring semester.

#### The Committee moves

- 1. that during the Wednesday, Thursday, and Friday of the first week of the fall semester, classes will follow a Tuesday, Wednesday, and Thursday schedule, respectively.
- 2. that during Monday and Tuesday of Reading week, classes will follow a Monday and Friday schedule, respectively.
- 3. that these changes take place during the fall semester of 2010, or sooner if practicable