

Report on Classroom Use

Educational Policies Committee, January 29, 2008

Overview

The EPC has been working to understand the current patterns of classroom utilization and how it reached its present state. We thank the Registrar's office for providing a variety of statistical information and for putting in extra effort to entering data from 1996 in order to judge how classroom usage has changed in the past 10 years.

As we heard at the first BFC meeting, classrooms are being used at a high level. One way of representing current use is to re-express it in terms of hours per week: the average non-seminar classroom is scheduled for 39 hours per week. Lecture halls are used at a somewhat greater level: over 40 hours per week. Seminar rooms (about 10% of the Registrar's rooms) are used about 31 hours per week.

The difficulties arise from the fact that distribution of class times is highly uneven during the week. In particular, from 9am to 5pm Monday through Thursday, classrooms are used nearly constantly. Outside of those favored hours, classroom usage drops significantly (although 40% of classroom usage must occur at other times) and the distribution of classroom use at these other times varies by school and department.

Our problem, therefore, is more one of classroom scheduling flexibility and efficiency rather than classroom usage. However, the way classroom times are distributed has had tangible negative impacts: on the Registrar Office's ability to assign classroom space as efficiently as it could (or at all in recent semesters), on the opportunity for faculty members to teach in space configured to their instructional needs, and on the efforts to renovate our existing space to modern specifications or to build new classrooms.

Instructional needs should trump efficiency as a goal in classroom scheduling. We need to support and encourage educational innovation. For example, many active teaching techniques depend on reorganizing the classroom to facilitate small group activities. For most of our existing classrooms, this means "losing" 20% or more of the seating capacity (supposing that the reorganization is possible at all).

Specific issues

Several trends in classroom scheduling requests have broken our policy for allocating classroom time:

- There are vastly more sections that meet twice per week than there are sections that meet three or more times per week. There are approximately the same number of sections now meeting in 75-minute periods as 50-minute periods.
- There has been a shift of hundreds of sections from MWF 50-minute sections (MWF50) to MW 75-minute (MW75) schedules, resulting in a significant dropoff in teaching on Fridays. We estimate that the campus is losing 5–10% of our teaching capacity by underutilizing Fridays.
- There is underutilization of the 8:00am scheduling slots, which represents a loss of another 5%.

- Due to the overuse of the daytime M-R slots, there are hundreds more requests for 75-minute teaching slots in the middle of the day Mondays through Thursdays than there are available slots. The Registrar's office is expected to resolve conflicts among the schools and 50 COAS departments.

The assumptions behind our system of assigning priorities for classroom assignments cannot work properly when the requested scheduling does not match the supply. There is no flexibility left for accommodating changes in scheduling, new courses, and enrollment changes.

Here's how bad it has become: It is now easier to find a parking spot near campus in the middle of the day than it is to find an open, instructionally-appropriate classroom at the same time.

Consequences

- Hundreds of courses compete for the same schedule slots semester after semester (up to 20% of the requests conflict): the Registrar's office is expected to mediate among them repeatedly.
- Instructors have limited ability to obtain appropriate classroom configuration, size, or location.
- It is difficult or impossible to reconfigure existing space to facilitate group work. Furnishing a room with small tables and chairs rather than the desk-chairs now used typically results in the loss of 20% of the capacity in a general classroom—seats that we cannot give up in our present situation.
- Leading up to recent semesters, there have been large numbers of students registered for sections that have no assigned classrooms. For example, this past December, large scale shuffling of classroom assignments was required to find space for Spring 2008 classes with 3000 enrolled students (of course, dozens of other courses that had classroom assignments before then were affected as well).
- It is difficult to take existing classrooms out of commission for extensive renovation; now, it is becoming impractical to take a single large lecture hall out of service for extensive renovation. Furthermore, the loss of space to bring old classrooms up to modern standards (or to code) may make significant renovation impossible without losing significant seating capacity.
- We have enabled the culture of the long weekend: Although the most common schedule for students runs M-F (approximately 17000 students), for over 12000 the academic week is shorter.
- Sections are more crowded: comparing 1996 to 2006, enrollment has gone up 10% but the number of sections has only risen 5%.
- We are years away from any significant expansion of classroom space. If we cannot use our space more efficiently, we are stuck with our current predicament.

Immediate Measures

To avoid having students registered into sections without classrooms, the scheduling process must become more efficient and more flexible. The Registrar is proposing radical action:

enforcing the existing Room Assignment Policies. The main goal is to encourage departments and schools to submit realistic scheduling requests at the beginning of the scheduling process.

The key provisions to be enforced include:

- to require that scheduling requests have an appropriate distribution between prime- and out-of-prime classroom hours,
- to prohibit unwarranted seating capacity increase requests (unless approved by the school's dean),
- to discourage requests for non-standard time slots.

In addition, the Registrar is proposing changes to the policy, including

- to prohibit the scheduling MW 75-minute classes from 11:15 am to 2:30 pm: During this time period, scheduling of 75-minute classes creates a long, unusable interval between standard class times (30 minutes, from 12:30 pm to 1:00 pm, in the case of a pair of 75-minute classes; or 55 minutes long, in the case of pairing a 50-minute session with a 75-minute class).
- to give preference to a 9:30am MW 75-minute class when paired with an 8:00am class: This would provide an incentive for departments and schools to make better use of the 8:00am periods.
- to require all classes to have a room assignment prior to being available for enrollment: This would eliminate the problem of having students registered for sections without a classrooms that was mentioned above as well as providing an incentive for departments and schools to be flexible in their scheduling.

The Committee supports the Registrar's proposals, and urges the Provost to convene the Calendar and Scheduling Committee to consider changes in the Classroom Assignment Policy as well as any interim measures that are required to avoid future scheduling crises.

Long-term Options

The scheduling problem is a shared one between the faculty, departments and schools, and the campus administration. Faculty should work with their scheduling officers to help them develop realistic scheduling requests. At the same time, faculty must communicate their instructional needs to the administration, which will help to justify improving existing space and building new instructional space that meets changing educational needs.

The Committee offers a few ideas for the administration that have come up in our discussions.

These would not require major changes, and therefore provide, at best, limited benefits:

- Provide financial incentives to make better use of 8-9am or Fridays (the U. of Iowa approach). We now lose approximately 15% of our classroom capacity by not fully using those hours. Overall usage would not increase significantly, but scheduling flexibility and efficiency could.
- Usage is lower in seminar rooms (about 25% lower)—a few seminar rooms could be converted to small general classrooms. Again, we could expect marginal gains in capacity.

Any one of these will require significant changes in policy at the campus level, but could result in greater gains of efficiency and/or flexibility:

- Assess schools for classroom usage as a part of RCM. At present, schools get the benefit of scheduling at popular times (in the form of greater tuition allocation), but none of the cost. Scheduling a MW75 course during prime hours would cost significantly more than scheduling a MWF50 course in the same room at the same time.
- Allocate fixed amounts of classroom space to schools and let them decide how to schedule their designated space (which could simplify the RCM approach). The Registrar would hold back some space to adjust for semester-to-semester variations in enrollments and course offerings.
- Require students to register for at least one MWF course.
- Reduce enrollment by 5–10%. Dean Bertenthal is on record as opposing this.

Finally, we could leave things as they are; in that case we urge the College to take a more active role in the adjudication of conflicting classroom requests among its departments. Note however, that doing nothing leaves us with long-term risks. For example, if we are successful in achieving our goal of continuing to improve the incoming student profile, we could find ourselves without sufficient classroom space to accommodate the resulting increased enrollments in upper level courses.

Planning considerations

As a residential campus, we have exceptional opportunities to bring students and instructors together—we need to maintain that as one of our competitive advantages. We urge the Master Planning task forces to consider the need to encourage instructional innovation and to continue to invest in the instructional infrastructure of the campus.

Even if we are relatively successful in increasing our effective teaching capacity by 10%, which will be difficult, that would still not be enough to undertake a major program of reconfiguration and renovation. Some additional classroom space will be needed to take the scheduling pressure off of existing space and to allow for reconfiguration and renovation that will reduce classroom seating capacity.

We need more large lecture halls. For the largest halls, the only usable times are 8-9am (about one section per week per large hall) since most of the open times on Friday exist due to scheduling of MW50 courses that have associated discussion sections. It should be noted that the large halls (>200 seats) have relatively low rates of MW75 scheduling between 9am and 5pm.

Some schools (HPER and SPEA, for example) have rather a small amount of classroom space in their main buildings given the number of sections they offer. On the other hand other schools (ED and KSB) seem to have adequate amounts of nearby classrooms.