Overview
Our classrooms are crowded and with many courses restricted in their size due to physical limitations rather than pedagogic limits or a lack of appropriate academic support (i.e., teaching assistants and tutors). The classroom utilization of our largest classrooms is the highest in the system, and it is likely that our classroom availability will be reduced before it grows as a result of the pending Kresge rebuild.

Given these limits, our campus had planned to quite gradually increase total enrollment over the next several years, for example by targeting a significantly smaller class for fall 2015 than that of the fall 2014 class. UC’s agreement to grow enrollment by 5,000 students this year, and an additional 5,000 students in future years, has thrown campus plans awry. Rather than being about the same size as this year’s class, the fall 2016 frosh class will be about 20 percent larger. Future classes can be expected to be this size or larger, considerably increasing overall undergraduate enrollment, making each year more challenging than the last through 2020.

Even as our campus is receiving and distributing additional funding for instruction to divisions and units in the form of Senate faculty FTE, temporary academic staff funds, and teaching assistant positions, an increase in the number of classrooms needed to keep up with enrollment will be necessary for quite a number of years in the future.

This document provides background for discussion of three alternatives regarding time slots in general assignment classrooms. The first is to continue using the existing schedule, letting waitlists grow and class accessibility drop as enrollments rise. The two alternate options, based on those recently evaluated by Senate committees, consider reducing class meeting times to just above the UC standard of 37.5 minutes per quarter unit, and changing passing time to a uniform 15 minutes. These two options allow for the immediate addition of one Monday/Wednesday/Friday time slot and also leave room for two additional time slots either early in the day or late at night.

Classroom Capacity
Our campus has very limited large lecture spaces. UCSC has six general assignment classrooms that can accommodate more than 200 students and Classroom Unit 2 is the largest space on campus with 472 seats.
Our campus distribution of classroom sizes means that about one third of our total capacity is in rooms of 50 seats or fewer, another third in rooms of 51–200, and the final third in our 6 rooms with more than 200 seats.

Classroom utilization is measured based on a seats being occupied for 35 hours per week. Enrollment and financial pressures have increased utilization in the largest room from 112% in fall 2007 to 140% in fall 2014 (our 2012 utilization in the largest rooms was approximately tied for highest in the system, with many campuses below 100%).

For the large rooms, classroom impaction is dependent on the size of the frosh class. For fall 2015 there was a drop in utilization in the large rooms from 140% to a “modest” 133%. The fall 2016 class, and future classes, will be larger than fall 2014, and overall enrollment will be higher than fall 2014, and thus overall classroom impaction will worsen.

When adding time slots, especially slots in the early morning or at night, the most important use will be of the impacted large lecture classrooms. That is, it is not expected that many classes below 200 students would be scheduled at these times. Thus, adding 2 time slots in the early morning or late at night (at full capacity) would have a large impact with a few courses being scheduled at that time. For example, 12 faculty and TAs would be able to serve over 3500 students who might not otherwise have the opportunity to enroll. With additional large lecture capacity utilized, other space-restricted classes would be able to move into slightly larger classrooms.

Additional time slots, or extension of the normal instructional day, may help with impaction in special-purpose rooms, such as computer labs, science labs, and studios.

The most recent increase in classroom space was eight years ago with the opening of Humanities Lecture Hall. Since that time, campus enrollment increased 16% to fall 2014, the most recent peak; will increase 4% more to fall 2016; and is likely to further increase over the next several of years. With new classroom space several years on the horizon, the proposals below make it possible to increase available class times by 20% over the next few years.

**History of Discussion**

This unexpected and imminent crisis has led to a reopening of the discussion first begun by Interim VPDUE Mark Cioc. That proposal, motivated in part by the Student Union Assembly’s CLASS Survey, recommended a reduction in class meeting times on noticing that UC Santa

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Cruz classes met 42 minutes, rather than the systemwide standard of 37.5 minutes per quarter unit, thereby paving the way for additional time slots. Several iterations (this exchange is available at https://www.ue.ucsc.edu/classslots) resulted in a consideration of adding a single time slot to our existing schedule of 16 time slots with the support of an SUA resolution. At the time, with plans to moderate growth over the near term, an upheaval for a stable schedule over multiple years to accommodate slight growth (about 6%) in capacity did not seem the best use of time. Instead, we focused on the universal adoption of waitlists for courses to ensure that programs and divisions would be able to receive more timely feedback on unmet need for their courses.

Based on the feedback received through 2012, focus turned to possibilities that would (a) ensure that we did not pass below the system-wide standard of 37.5 minutes per quarter unit, and (b) accommodate an addition of more than a single time slot. Preliminary discussions with various faculty and units led to a sense of greater support for running classes later (e.g., beyond the current 9:45 p.m. end), rather than earlier (e.g., before the current 8:10 a.m. start). The resulting draft proposal provided to Senate and others suggested reducing passing time to a uniform 15 minutes; reducing class time to 65 minutes for those meeting three times a week, and 95 minutes for those meeting twice a week; adding 3 times slots (one each MWF, MW, and TTh); and ending the day at 10:25 p.m. (TTh) or 10:35 p.m. (MW). The proposal and Senate responses are available at https://www.ue.ucsc.edu/classslots2.

**Senate Recommendations**

Senate and Senate Committee feedback included three key recommendations: (a) that a broader discussion be held at the February Senate meeting; (b) that passing time and class time be reduced to allow the introduction of an additional daytime MWF time slot; and (c) that the need for late time slots (~ 9:00-10:30 p.m.) be held in reserve for possible future use given that “their implementation would be relatively straightforward once the other changes have been put in place [and] the added benefits of the late slots are highly unlikely to outweigh the significant costs”.

Regarding recommendation (c), it is important to note that the creation of a revised schedule for class times may be designed with the possibility of future expansion, but without immediate addition of those time periods. Given the reduced size of the fall 2015 class, it is likely that the addition of a single time slot for fall 2016 will help produce a manageable schedule in that more classes are able to be scheduled in rooms that fit demand. As the size of incoming classes beyond fall 2016 cannot be expected to drop, and may indeed rise, it is clear that annual reevaluation of the time slots will be needed, though, hopefully not in a manner that changes the times of the core time slots.

As noted in the Senate feedback, the ~9:00-10:30 p.m. time slots, running 45 minutes later than our current latest time, raises considerable issues with respect to safety and transportation. The transportation issues would be difficult to solve due to many students who rely on SCMTD transit to and from campus. The low frequency of buses after 10:00 p.m. would be quite difficult
to address. Even though child care is already not available in our latest time slots, the additional extension of the day to ~10:30 p.m. means that student or faculty parents may not return home prior to their children’s bedtime. Faculty services (beyond media services) are generally not available after 5:00 p.m.

Looking Toward 2016-17
Based on this feedback, the goal of adding one additional time slot for 2016-17, and the possibility of additional time slots in the future, we must reconsider the starting time; something that had been put aside based on preliminary, informal feedback. Earlier starts would be less likely to run into transit difficulties (there is already some regular service that arrives on campus around 7:00 a.m.), and the capacity at the end of the instructional day would still be appropriate. Child care issues would be similar as with late slots: on-campus childcare for student parents would not be expected to be available, and faculty may have difficulty finding childcare that can begin at 7:00 a.m. The safety concerns with late-night classes would appear to be solved with an early morning expansion. It is important to note that this is only a cursory look at the details of expanding into the early morning (as there will be time to further explore these issues later), with the plan being to add a single time slot now and develop detailed plans for implementing two additional time slots when needed (i.e., 2017-18 or 2018-19).

If the early morning should be where we consider expansion, then the block of core time slots should be shifted to begin at around 8:30 a.m. to make room for these classes. Thus, at the moment, there are three sketches for 2016-17 and future possible expansion. As the recent round of consultation illustrates, there are likely to be additional options or refinements that are not yet considered. The following are potential paths for 2016-17.

1. Keep the class schedule as it is with 15 time slots and 210 minutes of instruction per week, or 42 contact minutes per quarter unit in comparison to 37.5 at all other campuses.
2. Reduce class time to slightly above all other campuses; reduce passing time; begin instruction at 8:00 a.m.; add one MWF time slot; and slate ~9:00 p.m.-10:30 p.m. for future expansion.
3. Reduce class time to slightly above all other campuses; reduce passing time; begin instruction at ~8:30 a.m.; add one MWF time slot; and slate 7:15 a.m.-~8:30 a.m. for future expansion.

How would this be implemented?
The fall 2016 large lecture scheduling is currently in process. As discussed with the schedulers, if there is a change of time slots, the current time slots will be translated into the closest corresponding time slot. And, the additional time slot will then be available to allow classes to expand to larger facilities.

Three Options
Here are three options, the first being no change, likely untenable; the second accommodating the potential addition of late classes; and the third, the potential addition of early classes. Given
the transit and safety issues, in particular with extending instruction to 10:30 p.m., Option 3, or an improved version incorporating additional ideas, appears to be the best alternative even with its limitations.

Option 1: Zero new time slots and no change

- Monday, Wednesday, and Friday. Six time slots of 210 weekly minutes in three sessions of 70 minutes.
  - 8:00 a.m.–9:10; 9:30–10:40; 11:00–12:10 p.m.; 12:30–1:40; 2:00–3:10; and 3:30–4:40.
- Monday and Wednesday. Two time slots of 210 weekly minutes in two sessions of 105 minutes.
  - 5:00 p.m.–6:45; and 7:00–8:45.
- Tuesday and Thursday. Seven time slots of 210 weekly minutes in two sessions of 105 minutes.
  - 8:00 a.m.–9:45; 10:00–11:45; 12:00–1:15 p.m.; 2:00–3:45; 4:00–5:45; 6:00–7:45; 8:00–9:45.
- 20-minute passing time after 3-day class periods, 15-minute passing time after 2-day class periods.
- No expansion of time slot possibilities.
- Six three-day and nine two-day slots.

Option 2: One new time slot and potential for adding late classes

- Monday, Wednesday, and Friday. Seven time slots of 195 weekly minutes in three sessions of 65 minutes.
  - 8:00 a.m.–9:05; 9:20–10:25; 10:40–11:45; 12:00 p.m.–1:05; 1:20–2:25; 2:40–3:45; and 4:00–5:05.
- Monday and Wednesday. Two time slots of 190 weekly minutes in two sessions of 95 minutes. Ending at 8:45 p.m., 60 minutes earlier than current latest time slot.
  - 5:20 p.m.–6:55; and 7:10–8:45.
- Tuesday and Thursday. Seven time slots of 190 weekly minutes in two sessions of 95 minutes. Ending at 8:35 p.m., 70 minutes earlier than current latest time slot.
- Uniform 15 minute passing time.
- Two expansion time slot possibilities.
  - MW 9:00–10:35 p.m.
  - TTh 8:50–10:25 p.m.
- 20% total time slot increase.
- Seven 3-day and eleven 2-day time slots.

Option 3: Two new time slot and potential for adding one early class
● Monday, Wednesday, and Friday. Eight time slots of 195 weekly minutes in three sessions of 65 minutes. Beginning at 7:40 a.m., 20 minutes earlier than the current earliest time slot.
  ○ 7:40 a.m.–8:45; 9:00–10:05; 10:20–11:25; 11:40–12:45 p.m.; 1:00–2:05; 2:20–3:25; 3:40–4:45; 5:00–6:05.

● Monday and Wednesday. Two time slots of 190 weekly minutes in two sessions of 95 minutes. Ending at 9:45 p.m., same time as current latest time slot.
  ○ 6:20 p.m.–7:55; and 8:10–9:45.

● Tuesday and Thursday. Seven time slots of 190 weekly minutes in two sessions of 95 minutes. Beginning at 9:05 a.m., 65 minutes later than current start and ending at 9:40 p.m., 5 minutes earlier than current latest time slot.

● Uniform 15 minute passing time.

● Two time slots for future expansion beginning at 7:15 or 7:20 a.m., 45 minutes earlier than current first time slot.
  ○ TTh 7:20–8:55 a.m.
  ○ 20% total time slot increase.

● Eight 3-day and ten 2-day time slots.

**Student Leadership Feedback**
Review of these possibilities with SUA President Julie Foster and SUA Vice President for Academic Affairs Seamus Howard raised the following issues.

- All options will degrade educational quality. There are no good options.
- It would be near impossible for the many students living east of the San Lorenzo River to arrive at class at 7:15 a.m., given the current bus schedule. 7:45 a.m. may be feasible.
- It is possible for students to get home from a class ending at 10:35 p.m. with the current bus schedule (west side residents), the Night Owl Shuttle, internet-modulated ride services, or a Night Permit.
- Classed before 8:00 a.m. should be focussed on courses for frosh, ideally courses that are offered in multiple sections.
- Classes after 8:00 p.m. should focus on elective courses or constrained electives for which students have other options. Late classes can impact work schedules.
- Weekends would be a good choice or laboratory classes that have many section possibilities.
- The schedule change will be disruptive to a host of other activities, such as standing student organization meeting times, academic events and so forth. For this reason, making the schedule changes all at once is preferable.
- The advantages and disadvantages of the two models can be combined with a hybrid option, called Option 2.5 (Julie Option), which includes 7:30 a.m. expansion as a Monday/Wednesday/Friday class, and 8:50 p.m–10:25 p.m. expansion on Tuesday and Thursday as follows:
Option 2.5 (Julie Option): Three new time slots.

- Monday, Wednesday, and Friday. Eight time slots of 195 weekly minutes in three sessions of 65 minutes. Beginning at 7:30 a.m., 30 minutes earlier than the current earliest time slot.
  - 7:40 a.m.–8:45; 9:00–10:05; 10:20–11:25; 11:40–12:45 p.m.; 1:00–2:05; 2:20–3:25; 3:40–4:45; 5:00–6:05.
  - First time slot to focus on laboratories and courses targeting first-year students.
- Monday and Wednesday. Two time slots of 190 weekly minutes in two sessions of 95 minutes. Ending at 9:45 p.m., same as the current latest time slot.
  - 6:20 p.m.–7:55; and 8:10–9:45.
- Tuesday and Thursday. Eight time slots of 190 weekly minutes in two sessions of 95 minutes. Ending at 10:25 p.m., 40 minutes earlier than current latest time slot.
- 20% total time slot increase.
- Eight 3-day and ten 2-day time slots.

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Conclusion
UC Santa Cruz has been suffering from classroom impaction for five or more years. The lack of classroom space means that classes are not always able to meet demand even as the campus distributes additional faculty and teaching assistant positions to mirror our enrollment growth. Santa Cruz faculty have been greatly accommodating of this need, teaching at off-peak times and adjusting their personal lives to help ensure that students can make progress toward their degrees. The sudden mandate to grow undergraduate enrollment significantly faster than planned will greatly exacerbate this situation, and demands that we look at all possible solutions, even though none are ideal.

In the longer run, the campus plans to increase classroom space through the construction of three large lecture halls near Classroom Unit (600, 400, and 200 seats). Social Sciences III includes a modest increase of seats in one or two rooms, and the Kresge project is likely to require reconfiguration and rebuilding of the several classrooms in the college.

When these new facilities are completed in the 2020s, it will be an opportune time to reexamine our class schedule to consider return to a more normal schedule, ideally increasing passing time to 20 minutes. However, these projects will take time, and the larger classes of students will begin arriving next fall.