## How many GA classrooms?

<table>
<thead>
<tr>
<th>Room Capacity</th>
<th>Number of Rooms</th>
<th>North Campus</th>
<th>South Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-19</td>
<td>23</td>
<td>21</td>
<td>2</td>
</tr>
<tr>
<td>20-39</td>
<td>79</td>
<td>53</td>
<td>26</td>
</tr>
<tr>
<td>40-59</td>
<td>39</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>60-99</td>
<td>21</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>100-149</td>
<td>17</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>150-199</td>
<td>6</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>200-299</td>
<td>6</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>300+</td>
<td>7</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Room Capacity</th>
<th>Percent</th>
<th>North Campus</th>
<th>South Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-19</td>
<td>12%</td>
<td>11%</td>
<td>1%</td>
</tr>
<tr>
<td>20-39</td>
<td>40%</td>
<td>27%</td>
<td>13%</td>
</tr>
<tr>
<td>40-59</td>
<td>20%</td>
<td>11%</td>
<td>9%</td>
</tr>
<tr>
<td>60-99</td>
<td>11%</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>100-149</td>
<td>9%</td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>150-199</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>200-299</td>
<td>3%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>300+</td>
<td>4%</td>
<td>3%</td>
<td>1%</td>
</tr>
</tbody>
</table>

- 198 GA Rooms
- Housed in 22 Buildings
- 85% used by College
- 15% used by Schools
- 65% on North Campus
- 35% on South Campus

(47 Department Classrooms)
What media are installed?

- 100% have network and internet access
- 96% have video playback equipment
- 65% have installed data projectors
- 52% have voice amplification capability
- 42% have installed classroom computers
- 32% have streaming or podcasting capability
- 11% have installed 35mm slide projectors
- 5% have installed document cameras
  (4 out of 7 in classrooms >300)
What plans are in the works?

• Optimize 3 or 4 small- to medium-sized rooms for distance learning
• Expand built-in BruinCast capabilities in many rooms
• Upgrade the largest rooms with multiple projectors and screens
• Expand the number of document cameras to eventually replace overhead projectors
How is the Schedule built?

- Term schedules built based on information from faculty
- Data is entered into OASIS (mainframe) by schedulers
- CASA (Computer Assisted Space Assignment) algorithm is run to place classes
- Infeasibles are rejected
- Schedulers check department proofs for unplaced classes
- Schedulers search for open rooms and times
- Classes without rooms by publication are changed to TBA
- Schedulers continue to search for open rooms
What are the standard time blocks?

<table>
<thead>
<tr>
<th>MWF and MTWRF Standard Time Patterns</th>
<th>TR Standard Time Patterns</th>
<th>TR, MW, MF, WF Non-Standard Time Patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 – 8:50</td>
<td>8:00 – 9:15</td>
<td>8:00 – 9:50</td>
</tr>
<tr>
<td>9:00 – 9:50</td>
<td>9:30 – 10:15</td>
<td>2:00 – 3:50</td>
</tr>
<tr>
<td>10:00 – 10:50</td>
<td>11:00 – 12:15</td>
<td>4:00 – 5:50</td>
</tr>
<tr>
<td>11:00 – 11:50</td>
<td>12:30 – 1:15</td>
<td></td>
</tr>
<tr>
<td>12:00 – 12:50</td>
<td>2:00 – 3:15</td>
<td></td>
</tr>
<tr>
<td>1:00 – 1:50</td>
<td>3:30 – 4:45</td>
<td></td>
</tr>
<tr>
<td>2:00 – 2:50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:00 – 3:50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:00 – 4:50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Two-hour patterns do not have priority placement in CASA. If two-hour, two-day patterns are used, these are the times most likely to be scheduled.

Questions? Call the Scheduling Coordinators, Doug Thomson and Janet Bartholomew (51441) or e-mail schedule@registrar.ucla.edu

Primary classes such as lecture sections are placed first.
Secondary discussion sections placed after primaries.
CASA gives priority to standard time blocks.
What is the department Proof?

Classes without rooms by publication are changed to TBA

http://web.registrar.ucla.edu/socproof/

General Assignment Classroom Scheduling: April 19, 2010
### Schedule of Classes

<table>
<thead>
<tr>
<th>Event Description</th>
<th>Winter 2010 Issue</th>
<th>Spring 2010 Issue</th>
<th>Fall 2010 Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deadline to receive approved course forms</td>
<td>Oct. 2</td>
<td>Jan. 8, 2010</td>
<td>May 14</td>
</tr>
<tr>
<td>Deadline to return updated Schedule text</td>
<td>Oct. 2</td>
<td>Jan. 8</td>
<td>May 14</td>
</tr>
<tr>
<td>Editing of Schedule text</td>
<td>Oct. 5 – 16</td>
<td>Jan. 11 – 22</td>
<td>May 17 – 28</td>
</tr>
<tr>
<td>Proofing of class listings by departments</td>
<td>Oct. 8 – 9</td>
<td>Jan. 14 – 15</td>
<td>May 20 – 21</td>
</tr>
<tr>
<td>Deadline for departments to e-mail course notes (placement exams &amp; mandatory midterm dates)</td>
<td>Oct. 12</td>
<td>Jan. 19</td>
<td>May 24</td>
</tr>
<tr>
<td>Course changes entered by depts &amp; scheduling</td>
<td>Oct. 12 – 14</td>
<td>Jan. 19</td>
<td>May 24 – 25</td>
</tr>
<tr>
<td>Department access cutoff</td>
<td>Oct. 16</td>
<td>Jan. 22</td>
<td>May 28</td>
</tr>
<tr>
<td>Resolve class conflicts</td>
<td>Oct. 16</td>
<td>Jan. 22</td>
<td>May 28</td>
</tr>
<tr>
<td>Deadline to receive approval memo for course-based fees (e.g., Course Materials fees, IEI fees)</td>
<td>Oct. 16</td>
<td>Jan. 22</td>
<td>May 28</td>
</tr>
<tr>
<td>Unplaced classes changed to TBA</td>
<td>Oct. 19</td>
<td>Jan. 25</td>
<td>Jun. 1</td>
</tr>
<tr>
<td>Download class listings for PDF Schedule (noon)</td>
<td>Oct. 21</td>
<td>Jan. 27</td>
<td>Jun. 2</td>
</tr>
<tr>
<td>Conversion of Schedule to PDF</td>
<td>Oct. 22 – 23</td>
<td>Jan. 28 – 29</td>
<td>Jun. 3 – 4</td>
</tr>
<tr>
<td>Enrollment appointment times available URSA</td>
<td>Oct. 28</td>
<td>Feb. 3</td>
<td>Jun. 9</td>
</tr>
</tbody>
</table>

## What are priority rooms?

Some departments are given priority to scheduling a room if they have a large number of courses, agree to use standard time blocks, and schedule throughout the day.

Scheduling is then opened for CASA placement.
What's the pattern in small priority rooms?

South Campus

North Campus

Holding Space with Zero Enrollment

Good Fill Rate
How does north and south campus scheduling differ?

When standard time blocks are used, more classes can be scheduled in prime time.
How was Fall 09 scheduling affected by the budget cuts?

- Departments got bridge funding decisions late
- Scramble to get enough “gateway” class for Orientation
- Classes were cancelled or added late
- Classes became larger and room switches were difficult for already published rooms and times
- Some schedulers couldn’t get data from faculty by deadlines
- Some schedulers couldn’t meet the deadlines because of workload issues
- Too many cluster courses scheduled on main campus
What factors affect scheduling?

- Increased admissions
- North/South teaching patterns (Single day, MWF, MW, TTh)
- Afternoon graduate classes (conflicts with TA discussion sections)
- Afternoon South Campus labs
- Late addition of classes
- Remote location (Clusters)
- Prerequisites and co-requisites
- Offerings in the major
- New courses & requirements (capstones, Clusters, seminars)
- Review sessions and midterm scheduling outside class hours
- Faculty colloquia and department meetings
- Room switches
- Media needs and room capability
- Classroom maintenance
- Commuting in a metro area
- Child/Elder care issues
- Student outside job obligations
- Concurrent UNEX students (1,200 students per term not counted in class enrollment data)
Tips for scheduling

- Plan classes for the year
- Use standard time blocks
- Don’t bunch classes in prime time
- Get data to schedulers by deadlines
- Don’t over-enroll classes beyond room capacity
- Coordinate midterm scheduling among departments
# How many undergraduates?

Undergraduate Headcount by Quarter -- Fall 2005 to Estimated Spring 2010

<table>
<thead>
<tr>
<th>TERM</th>
<th>COLLEGE</th>
<th>SEAS</th>
<th>SOAA</th>
<th>TFT</th>
<th>NURS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>05F</td>
<td>21,359</td>
<td>2,269</td>
<td>836</td>
<td>310</td>
<td>37</td>
<td>24,811</td>
</tr>
<tr>
<td>06F</td>
<td>21,866</td>
<td>2,313</td>
<td>844</td>
<td>314</td>
<td>94</td>
<td>25,431</td>
</tr>
<tr>
<td>07F</td>
<td>21,745</td>
<td>2,784</td>
<td>890</td>
<td>361</td>
<td>148</td>
<td>25,928</td>
</tr>
<tr>
<td>08F</td>
<td>22,008</td>
<td>3,013</td>
<td>945</td>
<td>368</td>
<td>202</td>
<td>26,536</td>
</tr>
<tr>
<td>09F</td>
<td>21,916</td>
<td>3,205</td>
<td>951</td>
<td>370</td>
<td>245</td>
<td>26,687</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Increase</th>
<th>3%</th>
<th>41%</th>
<th>14%</th>
<th>19%</th>
<th>562%</th>
<th>8%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>557</td>
<td>936</td>
<td>115</td>
<td>60</td>
<td>208</td>
<td>1,876</td>
</tr>
</tbody>
</table>

Increase

How many enrollments?

Third Week Enrollment GA Rooms

- 2006F: 100,747
- 2007F: 114,301
- 2008F: 120,314
- 2009F: 122,007
What’s the daily spread?

GA Classrooms/Days of the Week
Three-Year Fall Average

- Monday: 19%
- Tuesday: 21%
- Wednesday: 21%
- Thursday: 22%
- Friday: 17%
What’s the hourly spread?

Class Scheduling by Hour: Fall 2007

- 1,000 Review Sessions
- Midterms
- North Campus Seminars
- Graduate Classes

Competition 3 - 6 P.M.
What are the daily patterns in GA rooms?

Predominant Teaching Patterns: Fall 2006 vs. 2009

- More Single-Day Classes (09F = 65%)
- More Tuesday/Thursday Classes (09F = 16%)
- More Monday/Wednesday Classes (09F = 10%)
- Fewer Monday/Wednesday Friday (09F = 6%)

Single Day Classes Include
- North Campus Seminars
- Three-hour Graduate classes
- Two-hour discussion sections
- One-hour discussion sections

Number of Classes
- Fall 2009 = 3,237
- Fall 2006 = 2,587
How many minutes per class?

<table>
<thead>
<tr>
<th>Class Minutes</th>
<th>06 Fall</th>
<th>09 Fall</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>1,383</td>
<td>1,656</td>
</tr>
<tr>
<td>110</td>
<td>617</td>
<td>785</td>
</tr>
<tr>
<td>75</td>
<td>244</td>
<td>348</td>
</tr>
<tr>
<td>170</td>
<td>184</td>
<td>282</td>
</tr>
<tr>
<td>80</td>
<td>99</td>
<td>115</td>
</tr>
<tr>
<td>Other</td>
<td>60</td>
<td>51</td>
</tr>
</tbody>
</table>

- More classes
- More two-hour classes on MW
**How many GA rooms are used?**

**Fall 2007 Room Use by Hour in All GA Rooms**

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00</td>
<td>17%</td>
<td>27%</td>
<td>21%</td>
<td>29%</td>
<td>17%</td>
</tr>
<tr>
<td>9:00</td>
<td>48%</td>
<td>60%</td>
<td>59%</td>
<td>61%</td>
<td>60%</td>
</tr>
<tr>
<td>10:00</td>
<td>80%</td>
<td>77%</td>
<td>85%</td>
<td>77%</td>
<td>75%</td>
</tr>
<tr>
<td>11:00</td>
<td>77%</td>
<td>75%</td>
<td>81%</td>
<td>75%</td>
<td>81%</td>
</tr>
<tr>
<td>12:00</td>
<td>69%</td>
<td>70%</td>
<td>71%</td>
<td>66%</td>
<td>70%</td>
</tr>
<tr>
<td>1:00</td>
<td>63%</td>
<td>73%</td>
<td>64%</td>
<td>76%</td>
<td>63%</td>
</tr>
<tr>
<td>2:00</td>
<td>74%</td>
<td>73%</td>
<td>77%</td>
<td>79%</td>
<td>48%</td>
</tr>
<tr>
<td>3:00</td>
<td>57%</td>
<td>66%</td>
<td>61%</td>
<td>71%</td>
<td>28%</td>
</tr>
<tr>
<td>4:00</td>
<td>49%</td>
<td>58%</td>
<td>64%</td>
<td>68%</td>
<td>12%</td>
</tr>
<tr>
<td>5:00</td>
<td>33%</td>
<td>27%</td>
<td>43%</td>
<td>32%</td>
<td>5%</td>
</tr>
</tbody>
</table>
What are the measures?

**Efficiency Standards**
How much of a room’s capacity is used (% of fill)

**Use Measures**
Whether a room is in use at a particular time and day

50 hours per week (8a.m. - 6p.m.)
Monday - Friday
Do we meet efficiency standards?

CPEC standard is 70% fill in 100% classrooms

√ AACRAO standard is 66% fill in 70% of classrooms

Fall 2007: % of Seats Filled

<table>
<thead>
<tr>
<th>Room Capacity</th>
<th>03F</th>
<th>04F</th>
<th>05F</th>
<th>06F</th>
<th>07F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 15</td>
<td>49%</td>
<td>44%</td>
<td>44%</td>
<td>47%</td>
<td>46%</td>
</tr>
<tr>
<td>16 to 25</td>
<td>78%</td>
<td>82%</td>
<td>71%</td>
<td>76%</td>
<td>74%</td>
</tr>
<tr>
<td>26 to 50</td>
<td>68%</td>
<td>66%</td>
<td>60%</td>
<td>62%</td>
<td>62%</td>
</tr>
<tr>
<td>51 to 100</td>
<td>64%</td>
<td>63%</td>
<td>59%</td>
<td>59%</td>
<td>56%</td>
</tr>
<tr>
<td>101 to 200</td>
<td>70%</td>
<td>73%</td>
<td>69%</td>
<td>64%</td>
<td>68%</td>
</tr>
<tr>
<td>201 to 300</td>
<td>81%</td>
<td>76%</td>
<td>75%</td>
<td>68%</td>
<td>71%</td>
</tr>
<tr>
<td>301+</td>
<td>78%</td>
<td>83%</td>
<td>71%</td>
<td>71%</td>
<td>65%</td>
</tr>
</tbody>
</table>

71% 72% 66% 65% 65%

Yes
General Assignment
Classroom Scheduling

Questions?
Contact: Kathleen Copenhaver
kcopenhaver@registrar.ucla.edu

Scheduling Reports
http://www.registrar.ucla.edu/facultystaff/rooms

Scheduling Policies
http://www.adminpolicies.ucla.edu/pdf/870.pdf