

STATEMENT OF PURPOSE

This report reviews the significant procedural changes adopted for General Assignment classrooms between the 2018-2019 and 2019-2020 academic years through the following steps:

- Restate the principles of scheduling priority, processing of classrooms, and compliance enforcement
- Determine the degree of movement toward new 2-day meeting patterns for Lectures (Primary Activities)
- Examine possible effects of procedural changes on course start times for General Assignment rooms
- Calculate the placement rate for scheduling first requests, for 9 a.m.-2 p.m. (prime-time) and other time blocks
- Identify remaining scheduling availability for Primary Activities to illustrate opportunities for and challenges to growth.

**This document concludes with a glossary of key terms.*

EXECUTIVE SUMMARY

- **Did we observe any alarming data results indicating that the new procedures caused unintended consequences? NO**
Trend data suggests that, overall, the combination of procedural changes allowed for systematic and transparent assignment of General Assignment classrooms in Winter 2020, as in Fall 2019. Documentation, trainings, and communications from the Registrar Office Academic Scheduling unit were adapted to account for and assist with the implementation of these changes.

24 courses were scaffolded, 360 courses were prescheduled, 91% of the departments were in compliance for Primary Activity sections (PACT) and 89% of the departments were in compliance for Secondary Activity sections (SACT). Collectively, the campus offered 11,112 sections in Winter 2020.

- **Were more 2-day meeting patterns scheduled per the desire of students and faculty? YES**
Winter 2020 echoed Fall 2019 in increased adoption of new 2-day standard meeting patterns (Monday-Wednesday, Wednesday-Friday, and Monday-Friday). CHASS saw an increase of 53% in offerings of 2-day standard meeting patterns with a compliment 49% decrease in 3-day standard meeting patterns. In the same light, BCOE saw a 37% increase in offerings of 2-day standard meeting patterns and a 30% decrease in 3-day standard meeting patterns. The data suggest that instructors and department leaders acted on their stated preference from the survey conducted by the Course Scheduling Policy. ([see: Meeting Pattern Review](#))
- **Did we see a new shift in start times out of prime-time to non-prime time hours? Only for Secondary Activities**
[Start Times Comparisons](#) reveals a modest increase in “63 and Under” PACTs in prime-time scheduling from Winter 2019. One explanation for this increase would be 1 room added to the General Assignment inventory in Winter 2020. Nevertheless, the inclusion of Scaffolding SACTs as a priority status into the mix has not had a discernible negative impact on PACT accessing Prime-Time hours.

SACT start times show a shift out of prime-time to non-prime-time hours. This is expected given that SACT are scheduled last. A nearly 2% increase in PACTs and the overall change of meeting pattern demand have an impact on available space for SACT.

- **Did the majority of departments receive their initial requested day and times? YES**
It is encouraging that campus has maintained, if not increased, a consistent level of prime-time PACT offerings. In the analysis of [Initial Scheduling Requests Met](#) smaller 63-and-Under PACTs without priority scheduling are utilized. As a campus, 97% of prime-time initial department requests, in this band, were honored. Stronger competition arises in the “prime-adjacent” time block (8 a.m. start as well as 3 p.m., 3:30 p.m., and 4 p.m. starts), with an initial placement rate of 86%, likely due to a combination of influences (i.e. compliance rules, scaffolding Secondary Activities and prescheduling agreements).
- **Where high-demand day and time options exhausted for winter 2020? Almost completely**
An examination of remaining availability at the conclusion of the scheduling cycle indicates opportunities exist in the outermost time bands as well as at the University Village. High-demand options were almost completely exhausted for Winter 2020.

Creative partnerships on campus to leverage new space options, as well as construction of the Student Success Center will alleviate to an extent the scheduling challenges faced by the campus. These data will help serve as a benchmark against which to evaluate future trends once these spaces are deployed as scheduling options.

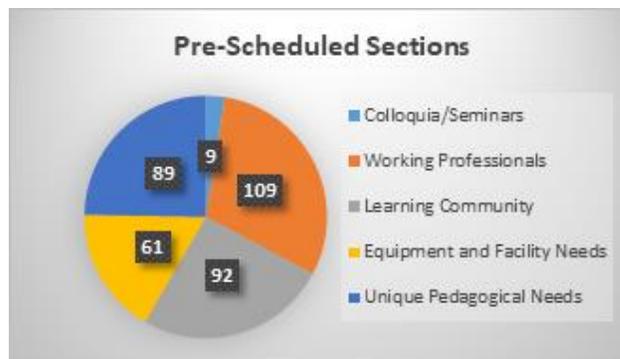
(See: [Primary activity meeting pattern classroom availability](#), [University Village Rooms](#))

SCAFFOLDING

Effective Fall 2019, scaffolding courses are identified by the CSC and the Provost and scheduled with standard meetings patterns for both Primary and Secondary Activity sections. For Winter 2020, there were a total of 24 courses comprising of 51 Primary Activity sections and 338 Secondary Activity sections.

PRE-SCHEDULED SECTIONS

Pre-scheduled sections have a non-standard meeting pattern or specific classroom assignment that has been approved by the CSC and the Provost. For clarification of the categories utilized, please refer to the appendix.



PRIME-TIME COMPLIANCE

Primary Activities

Departments which intend to utilize General Assignment classrooms are required to offer 50% or less of their Primary Activity sections in General Assignment rooms during prime-time hours as measured at “CALL” Deadline. Scaffolding sections are not counted in a department’s prime-/non-prime-time distribution due to the University service nature of these courses and because departments have relatively less control over when these courses are scheduled. Other pre-scheduling agreement Primary Activity sections, however, do count toward this distribution.

Of 57 academic departments, 5 were out of compliance (9% of departments) at “CALL” Deadline for Winter 2020: Biology, Botany & Plant Sciences, Business & Administration, CNAS, Electrical & Chemical Engineering.

The definitive schedule for Winter 2020, reviewed at the end of 3rd week, establishes ratios of prime-time sections ranging from 53% to 77% across all departments. 72% of departments were under the original 50% compliance expectation. It merits emphasizing that the compliance evaluation happens at “CALL” Deadline: after this checkpoint some schedule modifications do occur, and there are a variety of scenarios in which a department seemingly falls out of compliance.

Secondary Activities

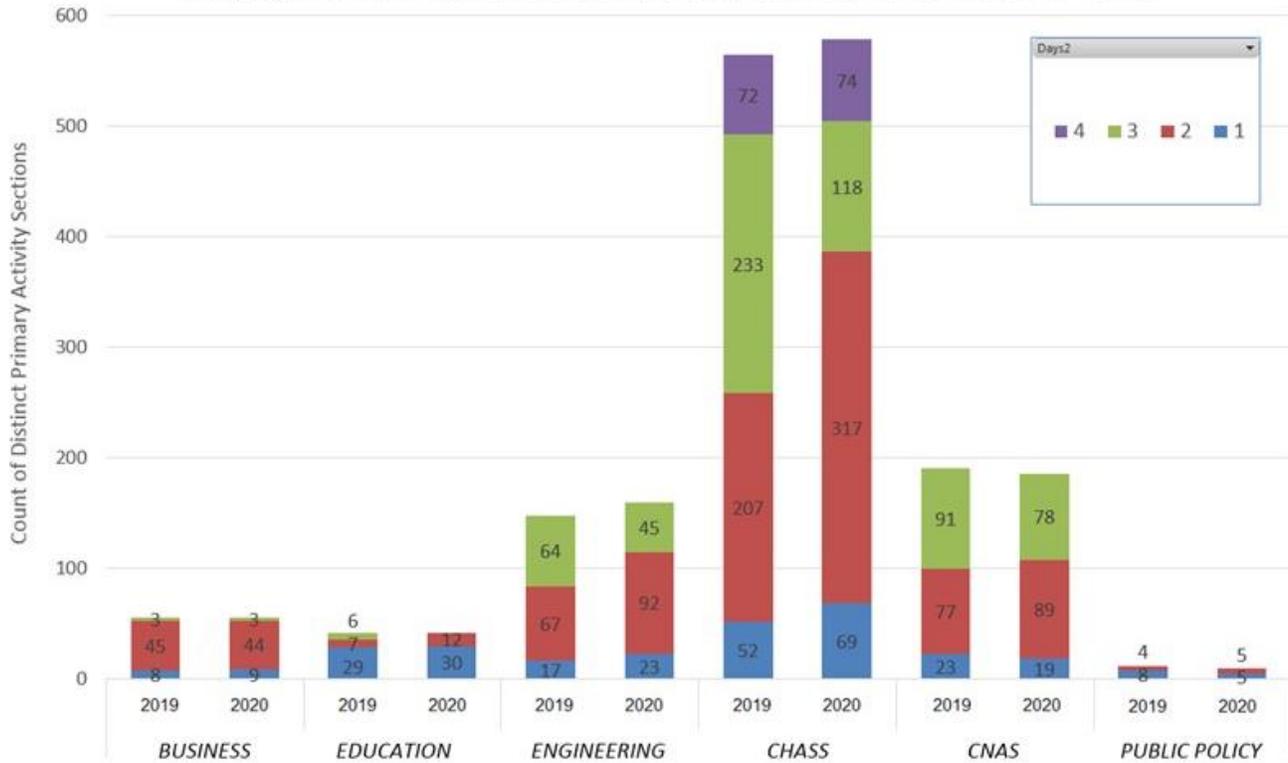
As for Primary Activities, departments requesting General Assignment classrooms must limit their proportion of Secondary Activities in those classrooms during prime-time hours. Guidelines for Scaffolding and pre-scheduling apply in the same manner as above. The limit of allowed prime-time Secondary Activity sections, however, is 60%.

Of 57 academic departments, 6 were out of compliance (11% of departments) at “CALL” Deadline: Anthropology, Bioengineering, Business & Administration, CHASS First-Year, Dance, and Materials Science & Engineering.

MEETING PATTERN REVIEW

Winter 2019 and Winter 2020 are presented below, organized by proportion of 4-, 3-, 2-, or 1-day meeting patterns for Primary Activities (PACT) (e.g. lectures). There was a significant change in standard options for Fall 2019, resulting in new 2-day patterns. Winter 2020 saw a continued reliance on these additional 2-day meeting patterns, as well as a corresponding decrease in 3-day meeting pattern use.

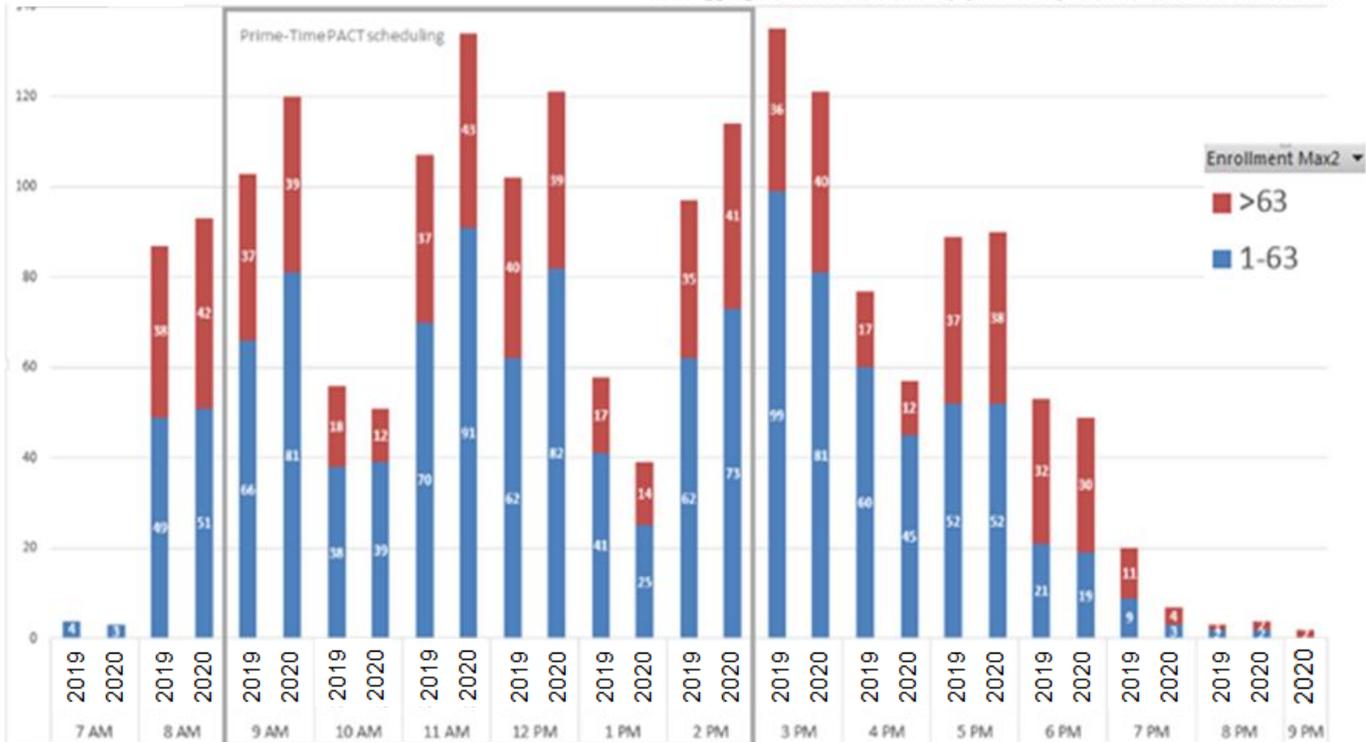
UCR Aggregate PACT Meeting Pattern Frequency by Days per Week by College - Winter 2019 vs. 2020



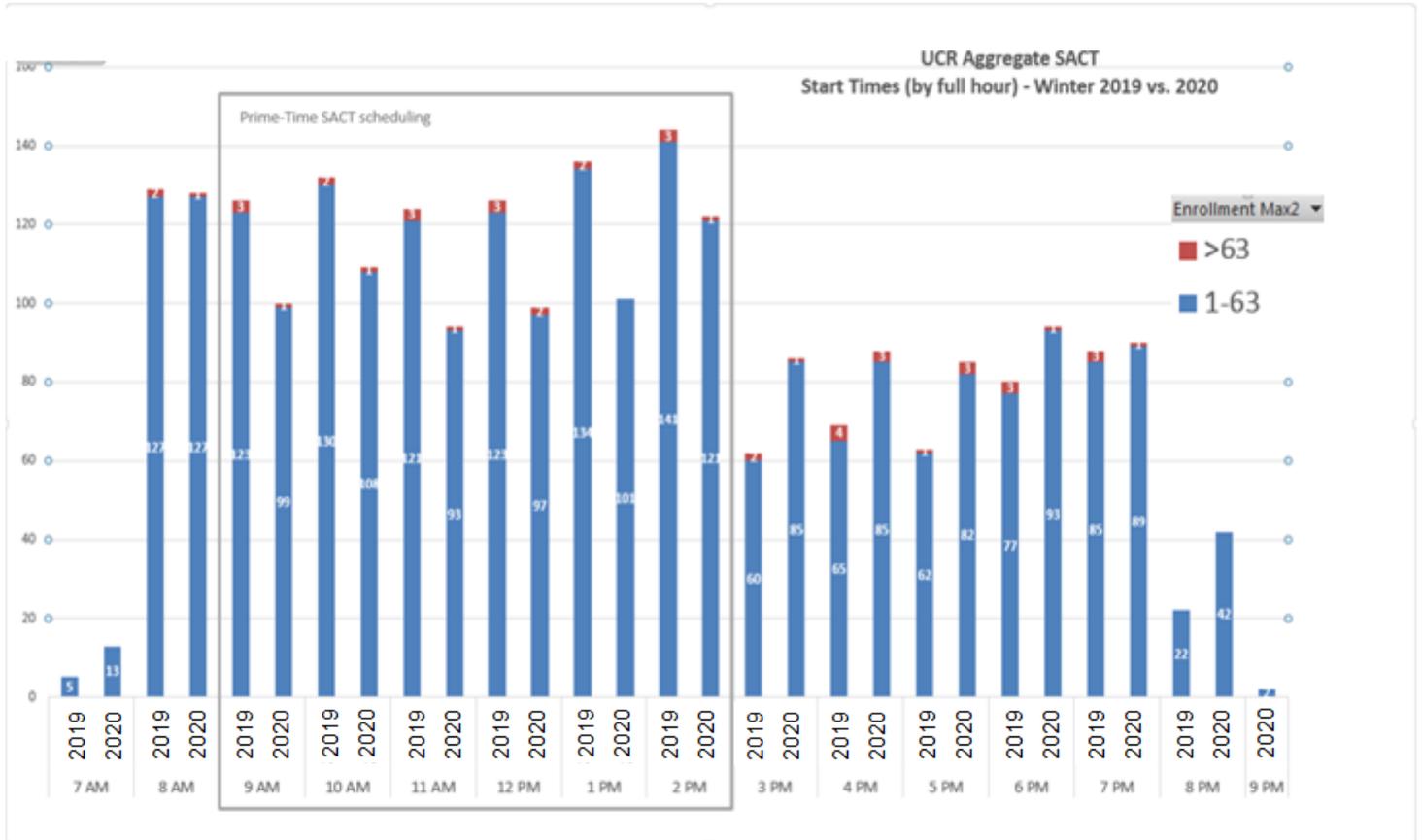
START TIME COMPARISONS

As observed in fall quarter, much of the shift in Primary Activity start time is accounted for by the demand for “new” 2-day meeting patterns, moving from 3-day meeting patterns. Nearly all high-demand hours seeing a decrease in total sections scheduled are those that **do not** have a 2-day meeting pattern start (10 am, 1 pm, 4 pm, 7 pm).

UCR Aggregate PACT Start Times (by full hour) - Winter 2019 vs. Winter 2020



The Secondary Activity (SACT) start times show a shift out of prime-time to non-prime-time hours. This is expected given that Secondary Activities are scheduled last. A nearly 2% increase in Primary Activity sections and the overall change of meeting pattern demand have an impact on available space for Secondary Activities.



PRIMARY ACTIVITIES: INITIAL SCHEDULING REQUESTS MET

The data below indicate that the policies and procedures in place allow for effective and equitable distribution of Prime-Time assignments among Schools/Colleges and departments regarding Primary Activities sections, max enrollment of 63. The time immediately adjacent to Prime-Time has seen increased competition for time slots.

Percent share of requests for each column and time band refers to the ratio of total requests of a time band to the Total Requests for that column. The Total Requests band, however, compares column total to the campus total: 491. (I.e. Undergraduate and Graduate shares sum to 100%, as do College/School shares.)

Winter 2020 PACT Room Assignment Initial Placement Results - 63 and Under Max Enrollment

Time Block	Campus	Ugrad	Grad	CHASS	CNAS	BCOE	BUS	EDUC	PBPL
Prime-time Requests	249	234	15	200	13	27	5	3	1
% Share of Requests	50.71%	50.76%	50.00%	50.38%	44.83%	54.00%	83.33%	50.00%	33.33%
<i>Assigned</i>	241	226	15	195	13	26	4	2	1
<i>Unplaced</i>	8	8	0	5	0	1	1	1	0
% Assigned	96.79%	96.58%	100.00%	97.50%	100.00%	96.30%	80.00%	66.67%	100.00%
8 a.m., 3-5 p.m. Requests	224	210	14	181	16	21	1	3	2
% Share of Requests	45.62%	45.55%	46.67%	45.59%	55.17%	42.00%	16.67%	50.00%	66.67%
<i>Assigned</i>	192	161	12	135	15	19	0	2	2
<i>Unplaced</i>	51	49	2	46	1	2	1	1	0
% Assigned	85.71%	76.67%	85.71%	74.59%	93.75%	90.48%	0.00%	66.67%	100.00%
Other Requests	18	17	1	16	0	2	0	0	0
% Share of Requests	3.67%	3.69%	3.33%	4.03%	0.00%	4.00%	0.00%	0.00%	0.00%
<i>Assigned</i>	18	17	1	16	0	2	0	0	0
<i>Unplaced</i>	0	0	0	0	0	0	0	0	0
% Assigned	100.00%	100.00%	100.00%	100.00%	NA	100.00%	NA	NA	NA
Total Requests	491	461	30	397	29	50	6	6	3
% Share of Requests	100%	93.89%	6.11%	80.86%	5.91%	10.18%	1.22%	1.22%	0.61%
<i>Assigned</i>	432	404	28	346	28	47	4	4	3
<i>Unplaced</i>	59	57	2	51	1	3	2	2	0
% Assigned	87.98%	87.64%	93.33%	87.15%	96.55%	94.00%	66.67%	66.67%	100.00%

The above figures represent first requests for GE classrooms as entered in Banner SSASECT fields by Call Deadline.

- > **Unplaced** indicates that a section required additional negotiation to receive a general assignment classroom. It does not suggest whether a section was ultimately able to receive a general assignment classroom. Many other factors are in play.
- > Standard meeting patterns only; priority scheduling is **not** reflected in the above table.
- > Secondary cross-list partners have been removed from counts to achieve a more accurate picture of the distributions.
- > Slight discrepancies are possible due to cross-list partner details not completed before CALL Deadline.
- > 2 BCOE requests assigned (1 Prime, 1 PseudoPrime) added to the schedule between CALL Deadline and the Optimizer run.
- > 1 BUS PseudoPrime request in consideration but not placed; also added between CALL Deadline and the Optimizer run.

PRIMARY ACTIVITY MEETING PATTERN CLASSROOM AVAILABILITY

This pair of charts highlights scheduling remainders for Winter 2020 Primary Activities. The first chart summarizes the quantity of meeting spots that remain among classroom capacity ranges for Winter 2020 room assignments. The data have been further compacted by grouping complementary meeting days, i.e. the patterns that could never cause an overlap in times on specific days. Unused options occurred most often in the two smallest capacity ranges of classrooms. The Under 20 range can be understood in relation to the low frequency of sections with an enrollment max of 20 and under. In the 21-45 range the sheer number of rooms in the inventory influences the remainder.

		Winter 2020						
		Under 20 (4)	21-45 (48)	46-63 (15)	80-119 (9)	120-299 (6)	300 Plus (4)	
Summary: All times								← Room capacity range
MWF, TR	3 days + 2 days	20 20.83%	115 9.98%	27 7.50%	17 7.87%	5 3.47%	5 5.21%	← GE rooms inventory (main campus)
MW	2 days (new)	2 5.56%	19 4.40%	2 1.48%	3 3.70%	1 1.85%	1 2.78%	← Unused scheduling spots after add/drop
WF	2 days (new)	0 0.00%	3 1.56%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	← Percentage of all possible scheduling options
MTWR, F	4 days + 1 day	11 14.47%	99 10.86%	23 8.07%	14 8.19%	7 6.14%	4 5.26%	

The second chart offers greater detail about unused hours for standard meeting patterns. Compatible meeting patterns and prime-time hours are represented here as well. The bulk of open spots cluster at the outer edges, indicating under-utilized hours: 7 am, late evenings, Friday after 5 pm. Conversely, the chart also conveys heavy demand for 8 am-5 pm options and the resulting competition for space. Color tabs and borders (gold, orange, blue, purple) outline meeting pattern groups that do not overlap and do not result in time conflicts.

Remaining Room Availability for Winter 2020 by PACT Meeting Pattern

				Under 20 (4)	21-45 (48)	46-63 (15)	80-119 (9)	120-299 (6)	300 Plus (4)					Under 20 (4)	21-45 (48)	46-63 (15)	80-119 (9)	120-299 (6)	300 Plus (4)	
Day(s)	Start	End	Duration							Day(s)	Start	End	Duration							
2. Compatible Meetings: MWF, TR	MWF	7:00 AM	7:50 AM	50	4	35	15	8	5	4	MTWR	7:00 AM	7:50 AM	50	4	29	15	8	6	4
	MWF	8:00 AM	8:50 AM	50	1	2	0	0	0	1	MTWR	8:00 AM	8:50 AM	50	1	1	0	0	0	0
	MWF	9:00 AM	9:50 AM	50	0	0	0	0	0	0	MTWR	9:00 AM	9:50 AM	50	0	0	0	0	0	0
	MWF	10:00 AM	10:50 AM	50	0	0	0	0	0	0	MTWR	10:00 AM	10:50 AM	50	0	0	0	0	0	0
	MWF	11:00 AM	11:50 AM	50	0	1	0	0	0	0	MTWR	11:00 AM	11:50 AM	50	0	0	0	0	0	0
	MWF	12:00 PM	12:50 PM	50	0	2	0	0	0	0	MTWR	12:00 PM	12:50 PM	50	0	0	0	0	0	0
	MWF	1:00 PM	1:50 PM	50	0	4	0	0	0	0	MTWR	1:00 PM	1:50 PM	50	0	0	0	0	0	0
	MWF	2:00 PM	2:50 PM	50	1	1	1	0	0	0	MTWR	2:00 PM	2:50 PM	50	0	0	0	0	0	0
	MWF	3:00 PM	3:50 PM	50	0	1	0	0	0	0	MTWR	3:00 PM	3:50 PM	50	0	1	0	0	0	0
	MWF	4:00 PM	4:50 PM	50	1	2	0	0	0	0	MTWR	4:00 PM	4:50 PM	50	1	0	0	0	0	0
	MWF	5:00 PM	5:50 PM	50	1	12	2	0	0	0	MTWR	5:00 PM	5:50 PM	50	1	3	1	0	0	0
	MWF	6:00 PM	6:50 PM	50	0	1	0	0	0	0	MTWR	6:00 PM	6:50 PM	50	0	0	0	0	0	0
	MWF	7:00 PM	7:50 PM	50	0	1	1	0	0	0	MTWR	7:00 PM	7:50 PM	50	0	0	0	0	0	0
	MWF	8:00 PM	8:50 PM	50	1	7	1	3	0	0	MTWR	8:00 PM	8:50 PM	50	0	1	0	2	0	0
MWF	9:00 PM	9:50 PM	50	1	24	2	4	0	0	MTWR	9:00 PM	9:50 PM	50	0	22	2	2	1	0	
1. Compatible Meetings: MTWR, F										F	8:00 AM	10:50 AM	170	0	0	0	0	0	0	0
										F	11:00 AM	1:50 PM	170	0	1	0	0	0	0	
										F	2:00 PM	4:50 PM	170	1	9	1	0	0	0	
										F	5:00 PM	7:50 PM	170	3	32	4	2	0	0	
3. Compatible Meetings: MW, TR, F										MW	8:00 AM	9:20 AM	80	0	3	0	0	0	0	
										MW	9:30 AM	10:50 AM	80	0	0	0	0	0	0	
										MW	11:00 AM	12:20 PM	80	0	2	0	0	0	0	
										MW	12:30 PM	1:50 PM	80	0	3	0	0	0	0	
										MW	2:00 PM	3:20 PM	80	1	1	1	0	0	0	
										MW	3:30 PM	4:50 PM	80	0	1	0	0	0	0	
										MW	5:00 PM	6:20 PM	80	0	2	0	0	0	0	
										MW	6:30 PM	7:50 PM	80	0	0	0	0	0	0	
										MW	8:00 PM	9:20 PM	80	1	7	1	3	1	1	
										4. Compatible Meetings: TR, WF										WF
WF	12:30 PM	1:50 PM	80	0	0	0	0	0	0											
WF	3:30 PM	4:50 PM	80	0	2	0	0	0	0											
WF	6:30 PM	7:50 PM	80	0	1	0	0	0	0											

Compatibility configurations have been ordered (1-4) by frequency adopted
 Pink with red text indicates "prime-time" scheduling
 Green shading indicates availability relative to room inventory, which is capacity-range (column) specific

DEMAND FOR AND USAGE OF UNIVERSITY VILLAGE ROOMS

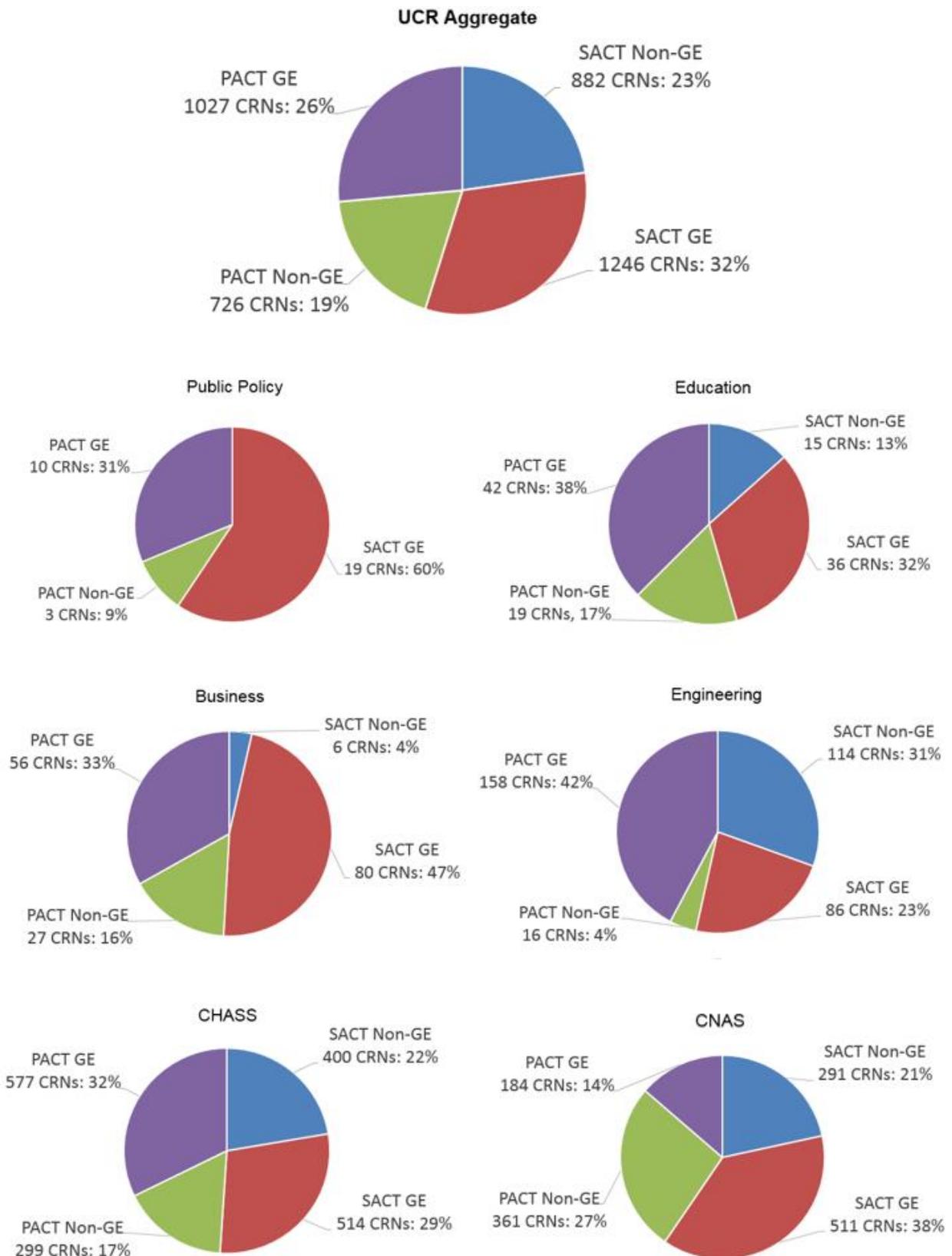
The prior two charts examine data for main campus General Assignment classrooms. Spots in the University Village THE8, THE9, and THE10, are occasionally requested during "CALL" but mostly are offered as options to larger Primary Activity sections not assigned a room after First Pass has been completed. Scheduling is available in the Theaters 7:30 am to 3:20 pm, Monday through Friday. UV Standard meeting patterns start and end 30 minutes earlier than main campus times.

Prescheduled - "Scaffolded" sections for UV	1	
Initial requests for UV classrooms	5	
UV room assignments accepted as alternate preference	21	
Total UV Assignments	27	% Assigned
MWF / TR: Meetings possible	39	69.2%
MW / TR / F: Meetings possible*	32	84.4%

*MW/TR/F combinations result in 32 spots available for sections, whereas MWF/TR complementary meetings allow for 39. The true availability may differ, given mixed demand across the two sets of meeting patterns.

RECORDED ROOM ASSIGNMENTS

Ratio of GE to Non-GE room assignments for Winter 2020 by activity type; sub-charts by college/school.



SECTION COUNTS

Sections in General Assignment (GE) rooms are scheduled by the Registrar's office. Sections identified in Department Rooms (DP) are scheduled by the academic department.

	General Assignment Rooms (GE)	Department Rooms (DP)
Primary In-Person Sections*	1,130	683
Secondary In-Person Sections*	1,346	924
Online Primary Sections	90	
Online Secondary Sections	110	
Total CRNs in Winter 2020 term**	11,112	

* With room assigned in Banner/25Live

** The grand total of CRNs represents all sections in Banner after the add/drop period for the Winter 2020 term, regardless of activity status, room usage, instructional method, or credit bearing nature. The courses and scheduling team completes several iterations of audits to ensure to the fullest extent possible compliance to approved course structure, credit and billing setup, instructor assignments and grading eligibility, and overall enrollment functionality ahead of the start of term, as well as during the term.

DATES AND DEADLINES

Winter 2020 Academic Scheduling Process Deadlines

Winter Academic Scheduling started	June 3, 2019
Winter "CALL" sent to Academic Departments	June 14, 2019
Winter "CALL" Deadline	August 14, 2019
2 nd "CALL" sent to Academic Departments	September 3, 2019
2 nd "CALL" Deadline	September 20, 2019
Schedule of Classes published live	October 24, 2019

DEFINITIONS

CALL – The window of time in which Academic Departments review a comprehensive report of sections from the previous "like-term" and make updates (additions, deletions, modifications) to the term currently in production. The CALL opens with an official announcement and supporting documents from the Registrar's Office and concludes at CALL Deadline.

Compliance – This can refer to one of two primary metrics that guide the processes of the Academic Scheduling unit in the Registrar's Office.

- **Prime-time compliance** – see Prime-Time; refer also to Prime Time Compliance on page 4 of report.
- **Utilization compliance** - The University must meet UCOP expectations for classroom minimum capacity utilization set at an average of 66.7%.

Course Scheduling Committee (CSC) – CSC is appointed by and reports to the Provost. The CSC includes the Associate Provost, the Registrar, the Associate/Divisional Dean for Student Affairs from each of the undergraduate colleges/schools, faculty and staff representatives.

CRN – Course Reference Number. This is the unique identification key in Banner for a course section in a specific academic term. Nearly all scheduling related reports contain this field. For the Registrar's Office Academic Scheduling unit this is the single-most useful piece of information for all manner of tasks, (simple requests, troubleshooting, etc.). Providing the CRN in communications to the team is greatly appreciated.

Department Room (DP) - See *Non-GE Room*.

First Pass – A scheduling step referred to mostly within the Registrar’s Office. It corresponds to the attempt to fulfill the greatest number of standard meeting pattern room requests, in accordance with Provost-directed guidelines. Once the available assignments have been exhausted, remaining unassigned sections require additional work to determine a desirable alternate meeting pattern among available options.

General Assignment Room (GE) - Any room that is under the direct scheduling administration of the Registrar’s Office Academic Scheduling unit as charged by the University Provost.

Non-Prime Time – Classes starting prior to 9 am and 3 pm and later.

Non-Standard Meeting Pattern – A teaching schedule that does not match a Standard Meeting Pattern.

Non-GE Room – Any room not under the direct scheduling administration of the Registrar’s Office Academic Scheduling unit as charged by the University Provost. For course scheduling purposes, these are alternatively referred to as departmental rooms but could fall under College management or that of individual departments.

Optimizer – A technical resource accessed through the 25Live administrative web-interface which uses advanced algorithms to assign course sections to eligible rooms while maximizing key efficiencies such as placement ratio, utilization, and building preferences. This tool is indispensable for assigning sections in the 63-and-Under max enrollment pool.

Pre-Scheduling – Sections that have a non-standard meeting pattern or specific classroom assignment that has been approved by the CSC and Provost. Sections in this category **are** counted in a department’s Prime / Non-Prime Time distribution. In order to guarantee scheduling under these agreements, course sections must be entered into the term no later than the CALL deadline. Sections entered after that time will be scheduled based upon current classroom availability. (E.g. Colloquia/Seminars, Working Professionals, Learning Communities, Equipment and Facility Needs, Unique Pedagogical Needs)

Primary Activity Sections (PACT) – The credit-bearing section(s) of a course. All courses have one primary activity schedule type, regardless of the number of sections of it offered in a term.

Prime-time – Sections with a standard meeting pattern that start between 9:00 am and 2:30 pm.

Scaffolding – Courses identified by the CSC and Provost and scheduled within standard meeting patterns for both primary and secondary activities.

Secondary Activity Sections (SACT) – The non-credit-bearing section(s) of a course. A course may have many, one, or no secondary activities.

Standard Meeting Pattern – A course schedule that adheres to one of the authorized interlocking scheduling blocks for the purposes of General Assignment classroom scheduling. Courses must start on the hour or half-hour and adopt one of the meeting patterns from the resource documents provided with the CALL announcement. Any non-approved, non-standard section will be scheduled after all standard scheduling has been completed. University Village standard meeting patterns are offset by 30-minutes (earlier) from the rest of campus.

University Village (UV) – Additional leased classroom space located off campus used for larger lectures. UV Standard meeting patterns start and end 30 minutes earlier than main campus times.