

University Classroom Committee Report To the Provost

2012 – 2013

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December 2013

**UNIVERSITY CLASSROOM COMMITTEE
REPORT
2012 - 2013
Executive Summary**

- In FY2013, the Classroom Committee funded replacement of seating in Tech LR2 and Tech 211; improved Pancoe Auditorium electrical and acoustic capabilities; and improved the physical condition of twenty-one other general-purpose classrooms. The Committee also partnered with Student Affairs in providing document cameras in the classrooms in Elder and Allison residence halls, and undertook the renovation of Library seminar room 3322, to test (successfully) a configuration that would permit this and the other Library seminar rooms to be used better during and after the renovation of Kresge Hall. Total cost of these improvements was \$636,500, using a combination of FY2013 funding and funding reserved from the FY2012 budget for anticipated electrical work and seating replacement.
- Much of the work of the Classroom Committee during 2012 -2013 focused on exploring alternative classroom options and general scheduling improvements that will be necessary once Kresge Hall is taken off-line for comprehensive renovations (anticipated to occur from Fall 2014 – Fall 2016).
- The Committee recognized the need to analyze options for the optimal deployment of classrooms on campus upon completion of the renovation of Kresge Hall and with the reoccupation/renovation of Jacobs Center. This analysis began during 2012-2013 and is continuing.
- The Committee convened two sets of focus groups to gather input from faculty on their preferred teaching configurations in classroom spaces. The first set of focus group was to solicit faculty input regarding the current Library seminar classrooms, in order to inform the upgrades to those classrooms that will take place during 2013-2014. The second set of focus groups was to solicit input from faculty who currently teach in spaces at Kresge, in order to determine the best possible setup of the Library seminar classrooms into which classes formerly held in Kresge will be scheduled, beginning in Fall 2014. An outcome of the second set of focus groups was input that will help determine the configuration of classrooms in Kresge, post-renovation.
- The newly-created Educational Technology Advisory Committee (ETAC), chaired by Ron Braeutigam, Associate Provost for Undergraduate Education and former Classroom Committee member, is looking at ways in which technology can further and support the University's teaching mission. Both ETAC and the Classroom Committee recognize the importance of the two groups being closely connected. The leadership of ETAC and of the Classroom Committee meet together regularly, to ensure that each group coordinates with the other's activities.

Use of the FY2013 Budget Allocation

The Classroom Committee receives an annual budget allocation of \$500,000 to support improvement to the physical condition of the University's general-purpose classrooms, scheduled by the Office of the Registrar. Funds reserved from the FY2012 budget (for anticipated electrical work and seating replacement) increased the amount of funding available in FY2013 to \$659,660.

In addition to approving several projects to replace/upgrade furniture and carpet, and providing the facilities portion of AV improvements, this year the Classroom Committee also approved improvements to all University Library seminar rooms, to be split 50/50 between the FY2013 and FY2014 allocations.

In FY2013, \$636,500 was allocated for the following projects:

1. Elder 030 & 032, Allison 1021: 50% split with Residential Services to provide document cameras in dormitory seminar rooms, in response to requests from faculty members who teach in these spaces increasingly.
2. Tech LR3: replace pedestal seating with post and beam seating (heavier duty product).
4. Tech L211: replace pedestal seating with post and beam seating (heavier duty product). Also provide power outlets to 25% to 50% of seats in room. (Power was a later project entry; furniture install delayed to winter break due because the actual time construction is allowed in room was only 10 days between summer school and new student week, so the outlets won't be installed until spring, allowing more time to decide how many outlets is correct)
5. Pancoe Auditorium: power, data and raceways were added to support the installation of new technology. Acoustic panels will be added before fall, 2013 to control sound reverberation so speakers are more clearly heard.
6. Frances Searle: carpeted 2-107, 2-370, 2-378, 2-407; restored (deep cleaned/repaired carpet & rubber nosing) 1-421, 1-441, 3-220. Room 2-370: replaced seating at tables and added Steelcase Node chairs where additional furniture was needed. Room 2-378: provide document camera.
7. University Hall 118-122: increase sound dampening on interior door between classrooms.
8. Added 50 teacher stools to all Registrar rooms (that didn't already have them) in: 555 Clark, University Hall, Harris Hall, Fisk, Lunt, Swift 107, Pancoe Auditorium, Leverone Auditorium, Annenberg and Frances Searle.

9. Parkes 212, 213, 214, 215, 222, Fisk 114, University Hall 118 & 218, Annenberg G28, G29, G30, G31, G32, 101, and Tech L221: provided additional data, low voltage raceways, relocated power for projectors (if they moved) and replaced screens in most rooms, to support improvements to technology by Academic & Research Technologies.
10. Provide all Registrar classroom clocks with new "Atomic Clock" with longer life battery pack.
11. University Library 3370, 3622, 3670, 3722, 4670, 4722, 4770, 5322, 5722, 5746: provide technology and new furniture based on faculty report recommendations so all rooms are completed and ready for classes by fall 2014. A decision was made to defer this project in order to allow for feedback from two faculty focus groups: one to gather input from faculty who have taught in Library seminar room 3322 and the other to gather input from faculty who normally teach in Kresge rooms.
12. Fisk 217: provide electrical outlets for the rest of the seats on the main floor of the auditorium, by fall, 2013. (Last summer, outlets were provided for the middle section.)

Please see Appendix I for a detailed list of all FY 2013 approved projects.

Update on classroom technology issues

During this year, Library Room 3322 was improved and used to test out the Library spaces for use during Kresge renovations, particularly by the language faculty. The renovation received positive feedback, and some modest tweaks were made to this room (an acoustic panel was added).

Tech Ryan Auditorium has received numerous upgrades to its acoustics. The installation of under-balcony speakers has effectively eliminated the problem of feedback from lapel microphones and has improved the overall sound quality in the room.

Updates on the Education Technology Advisory Committee (ETAC)

Bob Taylor, as liaison between the Classroom Committee and the Education Technology Advisory Committee (ETAC), reported briefly on ETAC's activities throughout the past year. Northwestern will be piloting LoudCloud, a potential replacement for Blackboard, with Kellogg School of Management this spring. ETAC is exploring possibilities for additional pilots with both blended and online modes, in order to meet the increasing interest in blended learning. This will also result in a need to develop more active learning classrooms and shift away from lecture halls.

Jean Shedd and Ron Nayler, as co-chairs of the University Classroom Committee, were invited to attend an Education Technology Advisory Committee (ETAC) meeting in March, 2013, to discuss recent committee activities and how the two committees can best collaborate as their various initiatives develop and evolve. The University Classroom Committee will be paying particular attention to decisions and developments made around active learning, in order to be able to make informed decisions about classroom space utilization and planning needs.

ETAC discussed the implications of active learning classrooms, specifically the expected loss of seating capacity in creating these 'flipped' classrooms. Mike Hannen of SESP described SESP's plan to transform the G-02 classroom in Annenberg into an active learning classroom, and then to test this model. Mike Curtis of Academic and Research Technologies presented three different models, based on class size, for flipped classrooms. The impending renovations to Kresge were also discussed, and the opportunity this project offers to rework the classrooms to make them as flexible as possible.

Classroom Utilization

During the 2012-2013 Academic Year, the Utilization Subcommittee has focused on Kresge/Crowe planning, as summarized below:

- Kresge/Crowe has 33 existing classroom spaces: 19 Registrar classrooms; 14 Departmental seminar/classrooms. Since only a few of these are in Crowe, Kresge cannot be taken off-line for an approximate 2-year period without provision of "swing-space" classrooms. While most of the space for Departmental and faculty offices will be at 1800 Sherman, this location cannot be used for scheduled courses because of Evanston's Zoning Code. Thus far a total of 18 spaces have been identified for use as temporary classrooms in buildings that include Tech, 2122 Sheridan, Crowe, Locy, 555 Clark and 1819 Hinman. During Fall 2013, the Registrar will be continuing to model the "supply" of temporary classrooms relative to "need" to assist in arriving at a workable arrangement during Kresge's renovation. Policy changes may be necessary to address the crunch anticipated during the renovation period: for example, changing from 14% to 12% the number of departmental course offerings in each of the five prime hours. Potential changes to the General Purpose Classroom Scheduling Compliance Policy will need to be considered during Fall Quarter 2013.
- Architectural/Engineering efforts are in the early stages of Schematic Design for Kresge's renovation, which is anticipated to start in Fall 2014 and be completed in Winter Quarter 2016. Preliminarily, the proposed number and mix of post-renovation classrooms below has been modeled by the Registrar, and roughly replicates the Registrar's current ability to place courses into General Use Classrooms:

<u>PROPOSED REGISTRAR CLASSROOM SUMMARY</u>						
Seat Count	Existing		Proposed (see note)		Difference	
	Count	NASF	Count	NASF	Count	NASF
0-24 (see note)	6	2,387	1	503	(5)	(1,884)
25-30	6	2,274	10	4,430	4	2,156
31-40 (see note)	1	604	6	3,510	5	2,906
41-59 (see note)	4	3,057	2	1,637	(2)	(1,420)
60+ (see note)	2	1,725	2	2,192	0	467
Total	19	10,047	21	12,272	2	2,225

NOTE: Proposed counts above include the following Registrar classrooms outside Kresge/Crowe: 1 classroom with 20 seats at 555 Clark; 1 classroom with 40 seats in Tech; 1 classroom with 49 seats in Locy; and 1 classroom with 71 seats at 2122 Sheridan.

At this point in the planning process, a total of 37 classroom spaces are projected for the immediate period after Kresge’s renovation. In addition to the 17 Registrar Classrooms to be in Kresge (2 less than are currently in Kresge), 16 Kresge/Crowe Seminar Rooms are to be otherwise assigned and scheduled for course use by the Registrar and/or WCAS (2 more than currently exist as departmental classroom spaces). Hence, the total number of classroom spaces in Kresge/Crowe (33) will remain the same after completion of Kresge’s renovation.

The incomplete record of scheduled events in RES (particularly meetings, luncheons, colloquia, presentations, tutorials, student group activities, etc.) has complicated planning efforts. The more complete picture of seminar/classroom use that was to inform the Kresge/Crowe planning process remains an exercise in guesswork and extrapolation. A more inclusive record of past utilization and data would have helped in sorting out “impressions” and anecdotal accounts of usage.

The Office of the Registrar is working on building a new system for classroom scheduling that will show historical class enrollment data. This will allow faculty to better determine their enrollment needs and then locate classrooms with capacities to match those needs. This new system will also assist greatly in informing future renovation projects of this type.

Use of RES & X25 Reporting Tool

Over the last three Academic Years X25 and RES (Room and Event Scheduling) were implemented. While efforts have been underway to train and encourage staff to use RES for the scheduling of departmental classroom spaces, complaints have surfaced that this web-based tool is slow and hence frustrating to use (this proprietary software is contractually housed on the vendor’s equipment off-site,

which is largely the cause of its slow response time). This has inhibited use of RES, and as a consequence some departments are again relying on other applications to track scheduling of their seminar rooms. While scheduled courses are for the most part tracked in RES, the difficulty is that a very incomplete record of other scheduled uses makes it difficult to understand the balance of course-use versus scheduled events such as meetings, luncheons, colloquia, presentations, tutorials, student group activities, etc. This has complicated the planning of future seminar/classrooms for post-renovated Kresge, as well as the assessment of temporary classroom “need” during the 2-year period of construction.

Kresge Renovation Project

Kresge’s renovation is currently anticipated to start in Fall 2014. The most pressing issue is identifying “swing-space” classrooms to compensate for the temporary loss of Kresge/Crowe’s Registrar classrooms (19) and departmentally scheduled seminar rooms (14). Kresge’s Registrar classrooms are the most heavily utilized on the Evanston campus, not just for scheduled courses (in Academic Year ’12-13: 81.6% room utilization), but also for student activities and other events. Still under study is the extent to which lower classroom utilizations elsewhere on campus can absorb removal of Kresge’s classrooms; however, some “swing-space” classrooms must be built-out. The question to be determined over the Fall Quarter 2013 is the number/size “needed” versus the number/size that can realistically be “supplied” without compromising other programmed space on campus.

Separate from the issue of interim classrooms during Kresge’s renovation, the urgent matter of determining the number/size of Kresge/Crowe classrooms has been provisionally “tested” through the use of scheduling models generated by the Registrar. In past years Kresge had been identified as a building in which the maximum and average enrollments in any term were far less than seat capacities, hence suggesting that some classrooms could have fewer seats. Curiously, the Registrar’s model identified a need for larger classrooms (roughly 100+ seats) unrelated to adjustments made to Kresge’s proposed classroom mix. Given the constraints of fitting programs into Kresge/Crowe, potential need for larger classrooms (larger than previously existed in Kresge) cannot reasonably be addressed as part of this renovation project. This, along with future patterns of utilization that could impact future classroom “need” in Kresge, remains to be studied and understood in the context of additional classrooms that come online in the Music/SoC Building and potentially as backfill in the Jacobs Center.

Please see Appendix II for detailed data on classroom utilization.

Goals for FY2014

- Develop a five-year schedule for the overall physical improvement of Registrar-scheduled (general purpose) classrooms, covering the period 2013 – 2018. *(This goal is carried over from 2012-2013. With the advent of on-line teaching, more significant changes to University classrooms may need to be made in the not-too-distant future. Developing a five-year plan to physically improve classrooms while keeping the plan flexible may best serve the University in a time of increasingly rapid change.)*
- Continue to encourage schools not now using the Room and Event Scheduling (RES) program to adopt this program for management of spaces that they oversee; improve utilization of general purpose classrooms through greater adherence to University scheduling policies and effective use of RES, working with the Office of the Registrar.
- Identify the policy issues that arise as a result of lack of a common scheduling system and recommend steps to improve this situation, in collaboration with the Office of the Registrar.
- Collaborate with Educational Technology Advisory Committee (ETAC) in supporting initiatives to improve teaching technology in the University, as recommended by ETAC.
- Continue to develop solution for meeting need for classroom space during upcoming renovation of Kresge Hall (scheduled to begin in summer 2014), through full utilization of general-purpose classroom spaces as well as alternative classroom spaces and teaching spaces scheduled by the schools.
- Gather information on the use of active learning classrooms and flipped classrooms, and the impact of new modes of teaching on the current general-purpose classroom inventory, to guide the Classroom Committee in making future improvements to classrooms.
- Continue to monitor initiatives arising from the University strategic plan, NorthWestern Will, especially ones that relate to teaching and learning in NU classrooms, and support these initiatives through the work of the Classroom Committee.

Appendices

- I. FY2013 Approved and Completed Projects
- II. Overview of FY2013 Utilization Data for Registrar Classrooms

Appendix I: FY2013 Approved and Completed Projects

Funding, 08/01/13	Fund Name	Amount	
820-1800100-80032487-01	FY2013 Classroom Renovations	\$500,000	PR000906
820-1800100-80031031-01	FY2012 Classroom Renovations	\$159,660	PR000817

FY2013 PROJECTS STATUS:

Status:	room	cap	sf	Description	Cost	Funds Spent	
1	Elder doc cams installed; need to check with Housing for direction on Allison	Allison 1021; Elder 30 & 32			provide document camera in each room; split cost 50/50 with Housing (amount shown is Committee's 50%)	\$12,000	\$12,000
2	scheduled before fall 2013	Frances Searle 2-378	28	708	provide document camera; hold on other rooms that don't have doc cameras	\$6,000	\$1,800
3	scheduled for Winter Break	Tech LR3	277	5,300	provide new post and beam seating by KI	\$140,000	\$158,000
4	scheduled for August	Tech L211	170	2,540	provide new post and beam seating by KI	\$70,000	\$228,000
5	scheduled for completion August, 2013	Pancoe Aud.	110		FM work to support A&RT Technology upgrades to Pancoe Auditorium; add data, new speaker pathways, carpet patch, minor carpentry & painting	\$15,000	\$243,000
6	completed	Frances Searle Classrooms			recarpet: Francis Searle: 2107, 2370 2378 2407; repairs in 1421 & 1441	\$30,000	\$273,000
7	completed	Frances Searle 2370	28	1,047	confirm capacity; replace all seating (seminar chairs, tablet armchairs, teacher stool)	\$23,500	\$296,500
8	need to review proposed solution with Bonnie for correctness	University Hall 118	20	367	Replace door between University Hall 122 & 118 with a soundproof one with panic hardware (include signage).	\$17,000	\$313,500
9	completed	locations to right			provide 50 teacher stools to: 555 Clark, LevAud, Fisk, Harris Hall, Lunt, Parkes, University Hall, Swift (3-5 for storage)	\$6,000	\$319,500
10	Parkes completed; Annenberg scheduled for August	Parkes 212, 213, 214, 215, 222; UH 118, 218; Fisk 114, Annenberg G28, G29, G30, G31, G32, 101, Tech L221			FM work to support A&RT Technology upgrades to (15) laptop classrooms. Tasks include adding (1) 4 wire data outlet, data activation, replace worn screens, & in a few rooms, reswitch the lights and move the projector.	\$50,000	\$369,500
11	August/Sept install	Evanston Registrar Rooms			provide/install American Time & Signal Atomic clocks with 5 year battery pack	\$12,000	\$381,500
12	in planning	Library 3370,3622, 3670, 3722 4670 4722 4770 5322 5722 5746	15 ea.	270 ea.	AV & furniture improvements 40k/room; cost shown is for (5) more rooms, to be selected 10 rooms all in need of upgrades.	\$200,000	\$581,500
13	in planning	Library 3370,3622, 3670, 3722 4670 4722 4770 5322 5722 5746	15 ea.	270 ea.	AV & furniture improvements 40k/room; cost shown is for (5) more rooms, to be selected 10 rooms all in need of upgrades.	\$200,000	FY2014 funding
14	scheduled September 2013	Pancoe Aud.	105	1,808	acoustic panels per consultant recommendation	\$15,000	\$596,500
15	scheduled spring 2014	Tech L211	171	2,540	outlets for 50% to 75% of seats (will decide after costs are known; 20k is est.)	\$20,000	\$616,500
16	install Sept or Winter break 2013	Fisk 217	329	3,048	outlets for remaining main floor seats: about 80 seats on the sides of the room (middle section completed summer 2012)	\$20,000	\$636,500

Appendix II: Overview of FY2013 Utilization Data for Registrar Classrooms

Below is the summary of information for the Fall, Winter and Spring Quarters, and compared with classroom utilization data from previous years:

Daily Utilization for all Classrooms scheduled by Registrar: Comparison of Fall, Winter and Spring Quarters 1999 to 2013

Utilization based on rooms scheduled for Fall, Winter & Spring (2012-13): average of 66.3% 9 to 5 daily;

Comparison: utilization between 1999 to 2013 dropped from 65% ('99-00), down to 59% ('02-03), down to 57% ('03-04), down to 55.5% ('04-05), but subsequently increased to 57.4% ('05-06), up to 60.8% ('06-07), up to 63.1% ('07-08), up to 63.3% ('08-09), up to 63.2% ('09-10), decreased to 59.0% ('10-11), increased to 66.1%* ('11-12), and increased to 66.3%.

Compared to previous years based on rooms scheduled 9 to 5 daily ('99-00 vs. '02-03 vs. '03-04 vs. '04-05 vs. '05-06 vs. '06-07 vs. '07-08 vs. '08-09 vs. '09-10 vs. '10-11 vs. '11-12 vs. '12-13):

Fall Utilization: dropped from 66% to 61% to 58.1% to 57.8%, increased to 59.3 to 63.2% to 64.1%, dropped to 63.3%, increased to 64.5%, decreased to 62.0%, increased to 69.7%*, and decreased to 69.6% in Fall '12.

Winter Utilization: dropped from 65% to 60% to 52%, increased to 58%, decreased to 57.5%, increased to 61.9%, to 63.9%, to 66.8%, decreased to 66.6%, 60.2%, increased to 66.1%*, and decreased to 65.9% in Winter '13.

Spring Utilization: dropped from 65% to 56% to 54% to 51%, increased to 55.5% to 57.3% to 61.3%, decreased to 59.8%, to 58.3%, decreased to 54.8%, and increased to 62.4%*, and increased to 63.3% in Spring '13.

For 2012-13 classroom utilization was highest during the Fall and Winter Quarters. Relative to trends and previous years, utilization for the Fall and Winter quarters remained essentially the same, with minor decreases of only a tenth and two tenths of a percent respectively. The Spring quarter showed a very modest increase of 0.9%. Overall average utilization increased 0.2% from '11-12.

Since Academic Year 2010-11, all quarters through Academic Year 2012-13 have shown uneven distribution throughout the day, with utilization pressure being higher during the 10 to noon and 1 to 3 time periods.

Room Utilization by Building 9 to 5 daily[†]:

In buildings with multiple classrooms scheduled by the Registrar, Kresge, Harris Hall, and Technology Institute are the three building with the highest overall utilization (as they were in '11-12): Kresge at 81.6% (compared to 81.8% in '11-12); Harris Hall at 80.6% (compared to 75.9% in '11-12); and Technology Institute at 75.2% (compared to 75.4% in '11-12). University Hall was just behind Tech at 75.2%, and actually had slightly higher utilization than Tech for Fall and Winter Quarters. Of the years for which we have data, Kresge has consistently been the building with the highest utilization. Of buildings with only one classroom scheduled by the Registrar, utilization decreased in Coon Auditorium {Lev. Aud} to 40%, (down from 76% in '10-

* All room utilization comparisons with years prior to Fall 2010 are likely impacted by an apparent ~5% increase due to implementation to X25, and as reported in the Classroom Utilization Report from Academic Year 2011-12.

[†] For this section, only calculations from X25 were used.

11 and 64.1% in '11-12), increased in Swift Hall Lecture Room 107 to 69.7% (up from 68.6% '11-12) and in Pancoe Auditorium to 63.1% (up from 60.8% in '11-12). For Coon Auditorium, this is a return to the much lower utilization typical of this space between 2000 and 2009.

Based on Size of Room Scheduled: Up to 20 seats; 21 to 80 seats; 80 to 120 seats:

	'99-00	'02-03	'03-04	'04-05	'05-06	'06-07	'07-08	'08-09	'09-10	'10-11	'11-12*	'12-13
Up to 20 (31 rms):	52%	46%	43%	39%	45%	46%	48%	47%	49%	42%	52%	46%
21 to 80 (70 rms):	65%	62%	60%	61%	66%	67%	66%	67%	68%	67%	75%	72%
21 to 40 (50 rms):											70%	71%
41 to 60 (16 rms):											70%	75%
61 to 80 (4 rms):											76%	77%
81+ (18 rms):	62%	64%	61%	56%	64%	65%	63%	66%	70%	67%	70%	69%

Compared to Academic Year '11-12, utilization decreased in the smallest rooms. The increase in '11-12, was perhaps due more to the active placement of classes in Library spaces by the Registrar's Office rather than being representative of teaching preferences.

Seat Utilization based on the Size of Scheduled Classrooms:

Seat utilization represents the percentage of seats occupied when a room is used. While average seat utilization for rooms scheduled from 9 to 5 daily peaked in '03-04 and again in '11-12 (54% representing the highest utilizations), seat utilization has generally been low. Classrooms with up to 20 seats (located in the Library) consistently have had the highest seat utilization.

	'99-00	'02-03	'03-04	'04-05	'05-06	'06-07	'07-08	'08-09	'09-10	'10-11	'11-12*	'12-13
Up to 20 (31 rms):	61%	57%	65%	66%	64%	64%	66%	64%	62%	59%	68%	57%
21 to 80 (70 rms):	47%	45%	53%	49%	45%	47%	48%	49%	50%	48%	52%	52%
21 to 40 (49 rms):	-----										52%	52%
41 to 60 (17 rms):	-----										52%	53%
61 to 80 (4 rms):	-----										48%	48%
81 to 120:	48%	51%	56%	53%	44%	46%	45%	46%	48%	50%	57%	58%
120 and larger:	39%	39%	44%	43%	40%	41%	43%	44%	42%	42%	40%	41%
Average	45%	47%	54%	53%	48%	50%	51%	51%	51%	50%	54%	53%

For any classroom potentially targeted for a decrease in the number of seats, seat utilization specific to the classroom needs to be considered, along with options for shifting some scheduled courses into classrooms with a larger number of seats.