Rutgers University Senate

Instruction, Curricula and Advising Committee

Charge S-2016: *Evaluate the current policies, practices, plans and outcomes for remote instruction across the University in response to the COVID-19 pandemic. Assess any lessons learned from the transitioning to online learning because of the pandemic.*

In response to the global pandemic, on March 10, 2020 Rutgers President Barchi announced that beginning Thursday, March 12, through the end of spring break (scheduled to begin on March 14th) on Sunday, March 22, all classes at the Camden, New Brunswick, and Newark campuses would be canceled. At that point in time, classes at Rutgers Biomedical and Health Sciences were to continue as scheduled. Beginning Monday, March 23, all course instruction, with the exception of instruction at RBHS, would be delivered remotely. There was to be no change to clinical rotations and clinical instruction at RBHS, but beginning Monday, March 16, all RBHS classes with more than 15 participants were to be provided remotely.

Initially, remote instruction was scheduled to continue through April 3, 2020. However, on March 17, President Barchi announced that the University was suspending all in-person instruction, including RBHS class instruction with the exception of clinical instruction, for the remainder of the spring semester. On March 26, Senior Vice President for Academic Affairs Barbara Lee announced that the 2020 Rutgers University summer session would proceed as scheduled but because of the spread of the coronavirus instruction for all courses would be offered remotely. At this time, no decision on the mode of instruction for Fall 2020 classes has been announced. But it seems likely that most, if not all, instruction will be delivered remotely.

For faculty whose classes were already online or in hybrid mode the transition to purely remote instruction was relatively painless. But fully online courses only accounted for small percentage of courses offered at Rutgers in a given semester. While most faculty were making use of Learning Management Systems (LMS), in many cases use of LMS was limited to its most basic features—syllabus, announcements, perhaps posting of some course documents. As a result, for many faculty the move to remote instruction meant that they had less than 10 days to learn the technology and to reconceptualize their courses in an online format. All faculty were asked to prepare and submit a remote instruction plan for their course(s) by Wednesday, March 18th.

On March 10th, the day President Barchi announced the suspension of face to face instruction, Academic Technology Services in Newark, and Instructional Design and Technology in Camden, sent out emails to their faculties announcing workshops for faculty preparing to move online. For Rutgers University-Newark, workshops were offered on the basic use of Blackboard (still the primary LMS for the Rutgers Newark campus); as were workshops on advanced Blackboard features, and sessions on setting up and using WebEx. Workshops focusing on the use of Blackboard Collaborative, Blackboard's video conferencing tool, as well tools such as Kaltura were then added. A "Preparing for Teaching Remotely" site was added to Blackboard and made available to all faculty.

In Camden, workshops focusing on the "BigBlueButton," the videoconferencing tool integrated into Sakai and Canvas, were targeted to specific faculty, with separate sessions set up for

Nursing, Law, Business, and Camden FAS. There were also separate sessions on VoiceThread and Kaltura which allowed for the creation of course multimedia projects. Faculty were also encouraged to survey their students as to their current learning environments.

In New Brunswick, on March 12th Rutgers Teaching and Learning with Technology (TLT) sent out a schedule of training sessions for faculty as well as links to "Teaching Continuity Resources." Coming from the unit whose entire focus has been online teaching, these featured not only basic instruction, but workshops and information focusing on best practices and the pedagogy of online teaching. TLT has continued to send out emails with tips for remote instruction.

At RBHS, individual units have their own IT departments. Responsibility for moving instruction online fell on these departments, some of which had staff with an instructional technology focus while others did not. While some units did provide workshops on using Canvas—courses using Moodle as a LMS at RBHS had recently moved to Canvas--most remote teaching moved to WebEx. WebEx, previously used almost exclusively as an online meeting platform, lacks many of the features designed for remote instruction available on standard LMS systems such as Blackboard, Canvas, or Sakai. It should also be noted that the medical schools operate on a different academic calendar and did not have the luxury of the Spring Break week in which to prepare faculty for moving to remote instruction.[1]

At the RBHS School of Nursing WebEx training classes started on March 12th; classes were available for group or individual training. Expedited VPN access and Data Run Access was granted. Beginning in April, the SON OIT provided resources for Best Practices for remote learning and information on reduced cost Verizon Wireless iPhone plans. They continue to support faculty including sending reminders before every full faculty meeting offering support with remote access. Currently, all course instruction is remote. Zoom was also presented as an option, although the University has discouraged the use of Zoom due to security concerns.[2]

Although RHBS clinicals within outside facilities have not been cancelled by Rutgers University, many clinicals were cancelled by practice sites as health care facilities concentrated on preparing for the COVID-19 crisis and care of their patients and staff. Remote clinicals (e.g. simulation) continued. Plans are being developed to resume clinical instruction within outside facilities this summer with strict screening guidelines in place. The School of Nursing-Camden practice sites were cancelled as well. Prelicensure clinical instruction was converted to remote online simulation. RN-BSN and DNP clinicals were augmented with telehealth modalities. The School of Pharmacy continued providing the last cycle of clinical rotations (virtually and onsite) in April for the Class of 2020. Clinical rotations are currently being conducted in a variety of ways—virtually, remotely, onsite, or blended.

All in all, the units responsible for online instruction across the University seem to have responded in an above and beyond fashion to the crisis, working with an unprecedented number of faculty in a remarkably short period of time. In general, faculty seemed satisfied with the IT

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[1] A break for first year medical students was scheduled to begin on March 20th.

[2] It is clear from the responses to the DOCs faculty survey that despite University discouragement, quite a few faculty are using Zoom as either their primary or secondary remote instruction platform.

support that they have received during the crisis. Remarkably, the existing technology seemed able to handle the sudden onslaught of users. Some faculty did report reliability issues with Big Blue Button for synchronous classes. However, the only technology that seemed seriously underscaled was the Rutgers VPN connection that quickly became overloaded. This was addressed fairly quickly[3], and no longer appears to be a problem. But obviously there was just so much that could be done within the time constraints to prepare the University to go online. Certainly we have all—online technology units and their staffs, faculty, and students—not only faced many challenges and issues but gathered insights into how best deal with some of these challenges both in the near future and in any possible disruptions to face-to-face instruction down the line.

Obviously, the University Senate is not the only group interested in what has been learned from our experience so far. Especially as some form of the "new normal" is likely to extend into the Fall semester. The University is planning to survey the students as to their experience in the online environment. Two questions relating to their experience were added to the Student Instructional Rating Survey (SIRS) for the Spring; nine optional questions that instructors could add to their course forms were also available.[4] And DOCS sent out a brief survey to all faculty on their experience.[5] About 70 faculty, most of whom seem to have had prior experience teaching online or in a hybrid environment, or were generally comfortable with technology, responded to the survey. DOCS has shared these responses with the Committee.

Finding Information

Certainly, the suddenness of switching from face-to-face/hybrid to totally remote was a major issue. Faculty who had no prior experience teaching online, or whose use of an LMS had been rudimentary at best, had to distill a tremendous amount of information in a very short period of time. Nor was there central point for information. Newark had their "Preparing for Teaching Remotely" site as an Organization within Blackboard; New Brunswick TLT had an "Emergency

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[3] VPN was overloaded quickly and went down completely on March 16. And more robust VPN was implemented seven days later.

[4] https://ctaar.rutgers.edu/sirs/covid19questions The two required questions were:
- Despite the abrupt change to remote instruction due to the Covid-19 disruption, the instructor [Instructor name] offered an effective learning experience in this course:
  A. Strongly Disagree. B. Disagree. C. Neutral D. Agree. E. Strongly Agree -(N/A)
- The move to remote instruction, due to the Covid-19 response, adversely impacted my learning in this course:
  A. Strongly Disagree B. Disagree. C. Neutral D. Agree. E. Strongly Agree -(N/A)

[5] They asked:
1. What creative or innovative teaching strategies have you found to be effective? Share any techniques that other instructors might want to adopt.
2. Please share any insights, helpful tips, or advice that might help colleagues quickly convert face-to-face classes to remote instruction.
3. What obstacles did you face and how were you able to adapt/overcome them? Specific examples are appreciated.
4. Please upload photo(s) or screenshots of your remote teaching solutions (e.g. visual teaching aids, engaging slides, interactive tools).

Preparedness" page (https://tlt.rutgers.edu/emergency-preparedness); Instructional Design and Technology in Camden had some information on their website. RBHS School of Nursing created a Canvas- Contingency for Teaching Remotely as a resource for their faculty.

It would have been useful to have a central site with consolidated, organized information on options and best practices across the University. While the need to learn new technologies may have been the initial concern, ultimately the best way to use those technologies in service to pedagogy was a critical concern to those operating in the new environment. Creating such a site going forward, incorporating what we have learned collectively and what considerations schools/programs found to be critical to their own disciplines, would go far in eliminating "reinventing the wheel" if faced with another crisis and also serve as a valuable resource for anyone interested in remote teaching.

Remote Etiquette Guidelines

For many Rutgers faculty and students, the logistics of remote instruction constituted a whole new world. While most faculty probably had some experience with web conferencing in a professional setting, most students did not and were unfamiliar with netiquette norms. What is perfectly acceptable when Facetiming with friends (eating, lounging in bed, pets sharing your screen, etc.) becomes disruptive in an academic setting. While Rutgers IT has information on Etiquette and Best Practices (for example, https://it.rutgers.edu/knowledgebase/etiquette-and-best-practices-for-web-conferencing/) this information is neither directed at students, nor does it recognize the environmental challenges that both faculty and students are currently facing. Where entire families are sequestered in their homes it may just not be possible to "Remove clutter or personal items around you" and to "Avoid background noise."

It would be useful for Rutgers to develop and widely circulate remote access guidelines/best practices in line with current challenges. This is especially important if we are indeed facing a Fall semester in which instruction will be primarily online. And a first year cohort for whom everything is new.

Policies

Rutgers appears to have very few of what can be termed "policies" for online education, and, outside the requirement for each faculty member to figure out and submit a "plan" for how they were going to teach each of their classes online, none for the COVID-19 environment. In April 2011, the Senate passed an ICA report recommending that:

> "Each academic unit (school or college) should develop guidelines for considering proposals for new online courses, as well as proposals to offer previous face-to-face courses in an online mode. Proposals should include an assessment of how learning goals are to be met, and how the instructor is to evaluate student learning. The mode of

instruction as an online course must be identified as it is presented to the curriculum committee of the academic unit."[6]

Requiring a course, even one that was previously approved as a face-to-face course, to be approved by an academic unit as an online course, is a recognition that there are different effective pedagogical approaches in different modes of teaching. This recommendation was implemented and became policy in individual schools/units. But obviously went by the wayside during the emergency!

Students were also given until May 22, 2020, to choose a Pass/No-credit grading option for individual courses[7]. Pass/No-credit grades will not be factored into GPAs.

Laboratory Courses

There appear to be no University, or even campus-based, policies on how to deal with lab courses and courses with laboratory components. This is especially problematic as we contemplate a Fall semester which is likely to be at least partially online.

Course Loads

One of the biggest issues that students faced during this transition is that it is a remarkably difficult task to take a full-time 5 or 6 course class load (maybe one or two have labs, too) all at the same time. Discipline is part of it, but there are also issues associated with household privacy, internet access, and childcare and eldercare responsibilities. Some students have remained essential workers, and that list surely goes on.

If Rutgers were to facilitate the **entire** Fall 2020 semester completely online, one option might be to create two 8-week semesters within the one semester. This way, students could take 2 or 3 courses in weeks 1 through 7, and then they could take their final list of Fall 2020 courses in week 8 through 16, very similar to the way that courses run through the summer, for 3 or 4 week increments. Coursework may be equally intense, but it would be more focused and therefore somewhat easier to handle.

On the other hand, this may not work well for courses, language courses for example, that require paced learning by their nature. Or be feasible in programs such as Nursing where concurrent courses, including concurrent clinical courses through the semester, are necessary

If redoing the academic course calendar across the board does not appear to be a viable option, it may be possible to implement it in specific schools or programs. Or to at least create the option for first year students who are likely to be the most vulnerable in a fully online environment.

Connectivity and Access

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[6] Online Education at Rutgers University. < https://senate.rutgers.edu/wp-content/uploads/2019/10/ICAC-Report-S-1015-April-2011.pdf>
[7] This option was not available for RBHS students.

As entire households transitioned to an online environment, many students had to deal with bandwidth and lack of equipment issues. Some students had always relied on University computing facilities. Some only had access via their phones. This is a critical issue that needs to be addressed. While OIT's recent announcement of access to Virtual Computer Labs (https://it.rutgers.edu/virtual-computer-labs/) is an important step in giving students access to software that they may not otherwise have available, it doesn't mitigate the underlying access issues. Discussions continue about the possibility of opening up some campus computer labs for the Fall semester. While doing so will help students who are local (on campus when that becomes possible, or who live in the vicinity) it will not alleviate the problems for non-local students. And while opening up labs may provide welcome study and work space, it doesn't actually provide "going to class remotely and participating" space.

Nor were all faculty set up to teach remotely. A number reported having to personally purchase equipment (Webcams, cables) for their home offices.

Online Exams

Faculty felt they could have used more preparation on how to deal with online exams. What kinds of online exams might be appropriate for their particular courses, how to set them up in whatever technology they were using, and how to deal with issues of academic integrity. And how to deal with excuses—how should you respond when a student reports that they couldn't complete the exam because their internet crashed? If a student reports that they are dealing with an ill family member, should they automatically be granted the opportunity to make up the test? It would be useful to have one central office that students could contact if they were dealing with COVID-19 issues; that office would then be responsible for communicating with all relevant faculty and requesting specific accommodations. Students would then only need to contact that office and not each individual instructor. If done on a school basis, this would generally be the Dean of Students office. There would have to be a conscious campaign to make students aware of the availability of this option.

Assessment was also a major issue when it came to testing clinical skills. Assessing a student's knowledge of concepts is fairly straightforward; testing their skills in applying those concepts in an online environment is not.

Academic Integrity

Academic integrity has, and continues to be, a major issue in all discussions relating to online/remote instruction. While research has not actually proven that students cheat more in an online environment, the perceived potential for increased cheating has always been one of the biggest areas of faculty concern when moving courses to a hybrid or online environment. Previously, in the case of many Rutgers online or hybrid courses while the classes were online finals, and often mid-terms, were done on-campus or in another proctored environment.[8]

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[8] The Senate report on Testing Facilities at Rutgers included information on Rutgers facilities used for online course testing: https://senate.rutgers.edu/wp-content/uploads/2019/10/ICAC-Report-S-1503-November-2015.pdf

Sadly, the move to a completely remote environment in the Spring of 2020 seems to confirm that faculty suspicions were indeed correct. The School of Engineering, for example, saw a huge jump in academic integrity cases at the end of that semester. Camden SAS reported an almost 600 percent increase in academic integrity violation cases for the Spring. The School of Nursing-Camden had a huge increase in blatant academic integrity violations while students were using ProctorTrack. This not only impacts the administrative units that have to deal with these cases but results in students essentially going into limbo as they wait for their cases to be adjudicated.

Rutgers has had ProctorTrack software, which uses biometrics to confirm student identity and then uses the test-taker's webcam to continuously capture video of the testing environment, available since Spring of 2015. However not all faculty who had to quickly move online this Spring were aware of ProctorTrack or how to best configure it for their needs. This is one area in which more training would have been valuable. At the same time, there were also issues with ProctorTrack identifying situations as potential violations when they were really just the byproduct of being in very tight quarters with others walking around and talking. It may be that in the current circumstances ProctorTrack is not best option.

In the current environment, it becomes critical for the University to set up some sort of group that would focus specifically on academic Integrity as it relates to remote learning.

Synchronous vs. Asynchronous

Faculty had to deal with the issue of setting up their remote courses as synchronous, as they would have been face-to-face; asynchronous, whereby students may listen to a recorded lecture at a time most convenient to them and communicate via discussion list; or some combination, whereby most students "meet" in a course site but the meeting is recorded for those who were not able to attend.

Selecting an asynchronous format for remote instruction meant a whole new set of technologies that some faculty had to learn. While recording an LMS or WebEx session that absent students could watch is very simple, for the recording to be processed and become available is not instantaneous. Some faculty reported that it might take up to four days for a WebEx recording to become available. Many faculty attempting to use Kaltura found the same issue—it could take days for the video to become available. Faculty reported that making more, but shorter, videos did alleviate the time lag for availability. Some faculty chose to move their video presence to YouTube instead.

A number of faculty who completed the DOCS survey reported that the students in their classes preferred synchronous instructions—they wanted that sense of community.[9] Some adopted what would essentially be a flipped classroom model, with students listening to recorded lectures or other presentations online and then meeting synchronously for discussion and questions.

On the other hand, once Rutgers sent their students home, it meant that many students weren't just in another part of the country, many were in other parts of the world. Depending on the

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[9] Some had surveyed the students in their classes on their preferences; others began asynchronously and switched to synchronous due to student complaints.

make-up of a particular course, asynchronous may be the only option. Although one instructor reported conducting separate synchronous sessions for students that were now in China!

In addition, with entire households trying to work and go to school from home simultaneously, connectivity becomes a major issue. For these students asynchronous may indeed be the better option.

Streaming Video

A number of faculty who regularly use films as part of their instruction expressed frustration with not being able to use DVDs and the fact that their "LMS did not have contracts for streaming films." Many did not seem to be aware of the streaming services (SWANK, Kanopy) available through the Rutgers Libraries.

RBHS

Obviously, clinical programs such as the Medical Schools, Nursing, and Pharmacy face special challenges. The move to online classes has effectively wiped out the third and fourth year clinical medical programs. RBHS SON has taken advantage of free online resources to assist with remote learning. The School of Pharmacy developed virtual and hybrid clinical experiences to fulfill practice-based requirements for progression, program completion, and licensure. Undergraduate RBHS SON simulation experiences were converted to a remote platform. The Storyboard Simulation Technique was presented at a regional webinar on May 13. A digital clinical experience interactive web-based product has been purchased for an undergraduate course. The Certified Registered Nurse Anesthetists program will resume in-person simulation following strict guidelines. Interactive human simulation experiences plan to begin remotely summer 2020.

LMS Migration

This crisis came at a time when Rutgers was in the middle of migrating LMS content from Sakai and Blackboard to Canvas. This is a phased migration; the intention is to complete the migration in the next two years. However, there is some question on the advisability of making faculty who have just been forced to learn one LMS to move to another almost immediately. It might be wise, for example, to extend Newark's Blackboard contract for one year rather than attempt to move everyone over to Canvas next year.

Going Forward

At the present time, no announcement has been made of exactly how instruction for the Fall semester will appear.[10] It seems most likely that most, if not all, will continue to be offered

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[10] Rutgers is certainly not alone in grappling with how to go forward. Institutions are looking at all kinds of possible models. And putting themselves into a position where they can turn around quickly (go back completely remotely; return to campus) depending on how the situation resolves. Some scenarios are summarized in: https://www.pbs.org/newshour/education/whats-going-to-happen-at-colleges-this-fall-here-are-15-scenarios?fbclid=IwAR2nmhA3dGrUqj5fYzL2oigG2dqAC3e3d-eMu46L5gwySE4OWt_6BVEVuW0

remotely. Going to a primarily remote mode for the Fall is likely to result in some challenges different from those we faced in the mid-semester switchover.

For most of the University, the move to a fully online environment happened after Spring Break. This meant that students had already been in their classes for half of the semester. They were familiar with each other and with the instructor. Some level of a working relationship had already been established. This will not be the case with the majority of the classes in the Fall. Faculty will need to make a much more concerted effort to create that kind of working relationship early in the semester.

Interestingly, some faculty that responded to the DOCS survey reported that one of their frustrations with going online was teaching in an empty classroom. Why did it seem empty? The students were logged in but refused to turn their videos on. This despite that fact that they had been meeting in person for half a semester and knew their classmates and the instructor. It wasn't a group of strangers. Yet they could not be convinced to turn on their videos. Why they were reluctant to do so is unclear. It could be anything from insufficient bandwidth to not being comfortable displaying their chaotic home environment. But this is certainly likely to be even more pronounced if we are to continue online in the Fall.

There are also major pedagogical issues with first year students coming into a fully online environment. As we have pointed out in earlier reports, some studies have shown that students who took online courses early in their academic career were less likely to complete those courses than students in fact-to-face or hybrid courses; and also that those students were "slightly but significantly" more likely to drop out of school in subsequent terms.[11] Online courses require students to be proactive, well-organized and highly self-disciplined; many first-year students are just not ready to do well in this format.

Recommendations:

This is an interim report responding to a situation that continues to evolve on a daily basis. There are continuing and continuous discussions at the University, Campus, and School levels as to "what next." Without knowing where all these discussions are going, or even if they're all heading in the same direction, it's difficult to make firm recommendations. So some of these recommendations fall into the "something to consider" category and some into the "something that needs to be done" category.

1. The University should consider creating two 8-week semesters within the Fall semester for select courses or programs in which students would take half their courses in the first 8-week "semester" and the other half in the second.
2. If the above recommendation does not appear to be a viable option for implementing across the board, it should be seriously considered as an option for first year students.
3. There should be a central site that would serve as a University-wide repository of consolidated, organized information on options and best practices for remote teaching.

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[11]Online Education at Rutgers University. April 2011. < https://senate.rutgers.edu/wp-content/uploads/2019/10/ICAC-Report-S-1015-April-2011.pdf>

4. Remote classroom etiquette guidelines/best practices, that recognize current environmental challenges, should be developed and widely circulated at the beginning of each semester in which the University is primarily online.
5. The University needs to address equipment/access issues for students who will still be attending remotely.
6. OIT and other online instruction units need to focus part of their attention this summer to work with faculty on creating and using appropriate assessment instruments in a remote environment.
7. The University should set up a Task Force that would focus specifically on academic integrity as it relates to remote learning.
8. Students requiring specific accommodations as a result of COVID-19 issues should be directed to a central office. That office would then be responsible for communicating with all relevant faculty and requesting specific accommodations.
9. Rutgers University – Newark should consider extending their Blackboard contract for one year rather than attempt to move everyone to Canvas next year.

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