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. In the Fall of 2020 most instruction continues to be online.

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 many of the professional schools have their own instructional design staff and faculty in those schools relied almost exclusively on the instructional designer and IT support staff to move to remote teaching. 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. Zoom was also presented as an option, although at that point the University discouraged the use of Zoom due to security concerns.[2] The University did acquire a site license to Zoom in the Summer of 2020. There were some unfortunate incidents of racist Zoom bombing early in the Fall semester; due to some technical and protocol changes those incidents appear to have been contained and have not been repeated.

Although RBHS clinicals within outside facilities were not 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. In many cases, clinical instruction within outside facilities did resume this summer with strict screening guidelines in place. Units that resumed clinical rotations in the summer reported issues with students acquiring proper Personal Protective Equipment (PPE).
At the School of Nursing-Camden (RSNC) prelicensure clinical instruction was converted to remote online simulation, and RN-BSN and DNP clinicals were augmented with telehealth modalities. Clinical experiences did resume in the Fall, but clinical placements have been restricted in some specialty practice settings necessitating online, hybrid delivery to accomplish

[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 used Zoom as either their primary or secondary remote instruction platform in the Spring.

objectives. 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 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 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. Two questions relating to the students 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.

In addition, Vikki Katz and Amy Jordan from the Rutgers School of Communication and Information Science surveyed 3,113 undergraduates from 31 U.S. universities that had shifted to remote instruction on the experience in April and May 2020. *Left To Their Own Devices:*

---

[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).

How College Students Manage Remote Learning During the COVID19 Pandemic & How Faculty Can Improve It <https://medium.com/left-to-their-own-devices> reports the findings, and implications, of that survey.

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 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."

The Rutgers Teaching and Learning with Technology (TLT) group does have a guide for faculty developing Netiquette policies for their online courses: https://tlt.rutgers.edu/netiquette-%E2%80%93-often-overlooked-policy. This was developed pre-COVID but again seems to be little known.

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!

In the Spring, students were given until May 22, 2020, to choose a Pass/No-credit grading option for individual courses[7]. Pass/No-credit grades were not factored into GPAs. This option was not available for the Fall 2020 semester, although some felt that in light of the demands on many students and the issues with test-taking it should continue as an available option for the duration of COVID-impacted instruction. The Rutgers University Student Assembly (RUSA) conducted a survey in November of 2020 on the Pass/No-credit option. Over 13,000 students from the New Brunswick, Camden, and Newark campuses responded to the survey. 98.1 percent of those surveyed were in favor of implementing a universal, optional Pass/No-credit option for the Fall Semester; 66.3 percent indicated that they would use such an option for one or more courses.[8]

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.

Some departments are utilizing virtual laboratories. Biological Sciences in Newark is using a Pearson package that has computer-simulated labs. TAs are meeting with students via Canvas or Blackboard; students are submitting lab reports based on their simulations. The labs are asynchronous; students have a week to complete the labs. The experiments are pedagogically sound, reinforce the lecture concepts, and have been well received by the students.

Some instructors have found that in some courses students don't have devices that can be used to do the lab work in that particular course. For courses with virtual labs, minimum required equipment levels needed should be available as part of the course descriptions during registration.

---

[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.

[8] Rutgers University Student Assembly. *Fall 2020 Pass/No Credit Survey Report*. November 23, 2020.

Some departments are offering some labs in hybrid mode with students attending in person on alternate weeks. Since the number of students who can be in a lab simultaneously is quite limited, hybrid can only work for smaller classes or where adequate facilities are available for multiple simultaneous sessions.

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. Contrary to the expectations of many students, staying at home and taking classes online does not make it easier to take more courses. While most instruction continues online, advisors should discourage students from registering for more than 15 credits per semester.

Connectivity and Access

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 announcement of access to Virtual Computer Labs (https://it.rutgers.edu/virtual-computer-labs/) was an important step in giving students access to software that they may not otherwise have available, it doesn't mitigate the underlying access issues. Some campus computer labs reopened for the Fall semester. While this helps students who are local (on campus or in the vicinity) it does not alleviate the problems for non-local students. And while opening up computer labs and library buildings may provide welcome study and work space, it doesn't actually provide "going to class remotely and participating" space.

Some schools have tried to assist students by buying hardware (Chromebooks, for example) in bulk and reselling to students at a reduced rate. In Newark, RU-N IT has set up a Student Technology Loan Program in which students (undergraduate and graduate) can apply to receive a loaner laptop, internet account, or other computing peripherals.[9]

Nor were all faculty set up to teach remotely. Faculty reported having to personally purchase equipment (Webcams, cables, upgraded routers, green screens, etc.) for their home offices. This was of particular issue to TAs, many of whom had inadequate equipment for their needs. There were reports of Chemistry TAs using their phones to meet with students and send them screenshots. Mason Gross used faculty donations to set up an emergency fund to buy their TAs needed equipment. There needs to be some official mechanism in place to make sure that these students are adequately equipped to do their jobs.

Online Exams

[9] See https://runit.rutgers.edu/technology-launch-pad/student-technology-loan-program/

Faculty felt they could have used more preparation on how to deal with online exams, such as the 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 adjustments. 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.

Students also reported being frustrated in asynchronous courses where exams were required to be taken on one particular day. If that day happened to be one where a student had a number of synchronous courses, it left them with a very short window in which to complete the exam.

Rutgers has created a very useful site on Remote Exams and Assessment: https://it.rutgers.edu/remote-instruction/knowledgebase/guide-to-remote-exams-and-assessments/ which not only offers more detailed information on Rutgers proctoring options, but also alternative assessment options. Again, this is information that should be more widely disseminated.

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.[10]

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 violation 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.

[10] 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

Faculty are responding to the academic integrity issues in a variety of ways. Some have moved to open book online tests which are geared toward students being able to apply what they have learned. Some with smaller classes are monitoring exams via Zoom. Some moved away from written to oral exams, meeting with individual students over the course of several days. While this seemed to work well with small classes, it's not really an option for larger classes. Some have moved from "testing" to developing other kinds of assessments

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. The use of ProctorTrack was controversial from the beginning; controversy that was exacerbated once most instruction moved online.

Not all faculty who had to quickly move online in the Spring of 2020 were aware of ProctorTrack or how to best configure it for their needs. 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. Students with certain disabilities, ADD for example, could potentially be flagged for looking around away from their screens. There were also issues relating to privacy--the School of Engineering received a petition signed by over 1000 students asking that ProctorTrack not be used due to concerns over privacy.

The Proctortrack issue came to a head in early October when in the middle of mid-terms Proctortrack was taken off-line due to a security breach. The announcement of the shut-down came literally minutes before the take-down, catching many faculty in the middle of, or about to start, exams. The company offered no indication of when the system might again be available. As a result, Rutgers announced that they were removing support for Proctortrack. At least for the short term, it has been replaced by Respondus Lockdown Browser and Respondus Monitor while discussions continue about the best long-term option. Significant input from students and faculty should be sought before any decisions on a long-term proctoring solution are made.

Some faculty had moved to ExamSoft as their proctoring software even before the latest Proctortrack issue surfaced. The Rutgers Camden School of Nursing has found Exam Monitor from ExamSoft to be very robust, much more user friendly than Canvas Quiz, and much preferred by students. Faculty in other departments concur with this assessment. ProctorU[11], which uses live proctors rather than AI to monitor students during exams is also available for Canvas and Sakai users. Although being monitored by any proctoring software is probably an additional stress factor for students in the current circumstances.

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. Such a group could focus not just on how to police academic integrity but how to promote it.

Synchronous vs. Asynchronous

[11] https://www.proctoru.com/portal/rutgers

In the move to the online environment, 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. The University acquisition of a site license for Zoom in the Summer of 2020 alleviated this issue for faculty who chose to utilize Zoom for their class sessions—generally Zoom recordings become available shortly after the completion of the class session.

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.[12] 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. Camden's October 2020 "Student Pulse" survey of Arts and Sciences and Business students found that 69 percent of those students had courses that did not have any live meetings. And that 60 percent of the students surveyed thought that their learning experience would be improved if the course had live meetings. A number of students complained that they felt that they were in essence "teaching themselves."

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 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! Some departments who have a significant number of students abroad are offering some evening classes so as to mitigate the time differences; some instructors are setting up office hours that account for time differences and allow them to interact in person with students that are otherwise in asynchronous courses.

In addition, with entire households trying to work and go to school from home simultaneously, connectivity becomes a major issue.[13] For these students asynchronous may indeed be the better option.

---

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

[13] Katz and Jordan found that "More than half of the students we surveyed (55%) reported that their internet connection at home was slowed by having too many people online at once. One in four was dependent on a device in poor working condition (27%), was not able to livestream reliably (25%), and could not download large files

Some students have also reported unforeseen—and certainly unintended—issues with synchronous classes and flipped classes. Some instructors teaching asynchronous classes have required that quizzes be taken on a specific day. Which may be difficult for students who have multiple synchronous classes on that day.

Some students have also noted that when the flipped classroom approach is used, the hours listening to asynchronous lecture plus attendance in synchronous lecture has grown. Some of this no doubt stems from the fact that most faculty have found that it's just not possible to cover the exact amount of materials they covered in face to face classes in the online environment in the same amount of time. However, they do need to keep in mind the existing University policy regarding credit hours and the amount of time required to complete all work associated with a course and adjust accordingly.[14]

With most instruction online, there are more opportunities for students to register for classes across campuses. However, course periods are not standard across campuses. Which makes it more difficult for students to cross-register for synchronous courses.

Streaming Video

In recent years media has become an important component of course instruction. A number of faculty who regularly use films in their courses 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 (SWANKand Kanopy, among others) available through the Rutgers Libraries[15] or how to request access to streaming videos for their classes. Faculty were also frustrated by the pre-pandemic shut down of the Library Media Center that was housed at the Douglass Library and the subsequent elimination of services, such as video digitization and the creation of video clips, that that Center provided to faculty university-wide.

In New Brunswick, the Language Center stepped in to assist language faculty with their digitization needs by allowing instructors to bring in DVDs that they then converted to MP4 files. These were accessible to students in Box, so they could watch but not download.

Students also had issues in classes where they were asked to watch streaming videos as a group. This is not recommended in the online environment. Streaming of library and personal resources frequently includes (by contract) restrictions on "rebroadcasting." In some cases, the providers have implemented technology that prevents someone from re-transmitting the context. In other

(24%)." https://medium.com/left-to-their-own-devices/how-do-we-make-remote-learning-better-listen-to-the-students-31dda6a01358

[14] **Section** 10.2.4 **Section Title:** Student Academic Regulations & Policies **Policy Name:** *Units of Credit. "The credit value of a course shall be assigned on the basis of the estimated amount of time a median student can be expected to devote to the course, at the rate of three hours a week per credit, including time in class, in laboratory, in conference with the teacher, or in reading, writing and preparing for class*." https://policies.rutgers.edu/1024-currentpdf

[15] https://libguides.rutgers.edu/media

cases, it may technically be possible to live stream the content. However, doing so takes up a lot of bandwidth. It is more than likely that online students, who may already have bandwidth issues, are not going to have a satisfactory viewing experience. Viewing in advance and then discussing in class would be the preferred practice.

RBHS

Obviously, clinical programs such as the Medical Schools, Nursing, and Pharmacy face special challenges. In the Spring, the move to online classes effectively wiped out the third and fourth year clinical medical programs. RBHS School of Nursing 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 in the Spring. A digital clinical experience interactive web-based product has been purchased for an undergraduate course. The Certified Registered Nurse Anesthetists program resumed in-person simulation following strict guidelines. Interactive human simulation experiences began remotely in the summer of 2020.

Academic Challenges

Faculty have had to grapple with the challenges of trying to maintain learning goals and educational standards in the current environment. In many cases there just hasn't been adequate time to rework their courses in such a way as to fit all their usual content into the online modality in a comfortable fashion. Either learning objectives have to be modified, content condensed, or a lot more work relegated to outside the classroom. How this is handled becomes especially critical when dealing with programs such as engineering, nursing, or languages where courses, or even entire programs, are sequential in nature.

Part-Time Lecturers

PTLs in general also faced special challenges in the move to remote instruction. Like all faculty, they had to scramble to recreate their courses for remote instruction, a process requiring a major commitment of time and energy—and a tremendous amount of uncompensated additional work for those who are paid by the course. Like many faculty, many PTLs were not set up to teach remotely and had to expend their own resources for equipment and access. Like many across the University, they had serious concerns about their health and that of their families. However, these are individuals who were stressed to begin with by their tenuous appointments, low pay, and lack of healthcare. Particular attention should be paid to the extra stress, uncompensated additional work, and further difficulties that PTLs face.

Student Challenges

All accounts, whether they be anecdotal or the results of local or national surveys[16], point to perhaps unprecedented levels of general student frustration and stress. Many continue to struggle with home issues—family, childcare, eldercare—while having to function as a student there as well. Most feel that being an online student in that kind of environment is much more difficult than going to class in person. They are attending classes and taking exams in what is often a chaotic environment. Some are still essential workers, adding to their general stress levels. Since in general instructors feel that they can't cover as much online as they would cover in a face to face class in the same time frame, many are adding additional assignments to their requirements. Every course is organized differently; assignments are in different places and in different modules. Students worry about missing things and that there's just too much to do.

We need to ensure that students are aware of services that are available to them, whether they be tutoring services or mental health services. We also need to better prepare instructors who don't necessarily understand, or know how to handle, student frustrations.

Students with Disabilities

One area that faculty have expressed frustration with is their ability to address the effect of the move to online learning for students with disabilities. The Rutgers Office of IT Accessibility (OITA) [https://it.rutgers.edu/it-accessibility-initiative/] has actually developed an excellent guide to Accessibility Resources for Remote Instruction.[17] The guide not only addresses common disabilities and accommodations, but also includes valuable information and tutorials on creating accessible documents and accessible online courses, as well as information on using Canvas UDOIT and Blackboard Ally--software that will scan course content in those LMSs and check for accessibility. Unfortunately, few faculty seem to be aware of this resource.

In addition, since the decision to inform faculty of specific challenges rests with the student, faculty are also frustrated that they don't know of student issues, or learn too late to be able to make sufficient accommodations. Since this is ultimately a student decision, there seems little that can be done outside of faculty openly encouraging anyone requiring accommodations to make those needs known early in the semester.

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. While 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 seems that

[16] See for example, Wang X, Hegde S, Son C, Keller B, Smith A, Sasangohar F. "Investigating Mental Health of US College Students During the COVID-19 Pandemic: Cross-Sectional Survey Study." J Med Internet Res 2020;22(9):e22817. [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7505693/] Investigators found that the majority of students surveyed (71%) reported that their stress anxiety had increased during the pandemic and that the biggest contributor (39%) to stress was concern over academics.

[17] https://it.rutgers.edu/it-accessibility-initiative/knowledgebase/accessibility-resources-for-remote-instruction/

many have bitten the bullet and already moved to Canvas. Although for those who need to migrate their courses from Sakai to Canvas, there are still major issues and delays.

While having to deal with multiple platforms is an issue for both students and faculty, it is especially problematic for first year students who for the most part have never had to deal with any LMS. The School of Engineering, for example, reported that they had a significant number of first year students defer onboarding at least in part because they were intimidated by having to deal with multiple platforms.

Some faculty are also using Top Hat or other platforms in addition to or in lieu of existing Rutgers LMS platforms. This not only adds another layer of complexity to the LMS issue, but also brings up other issues. For example, if someone choses to adopt a Top Hat textbook that textbook must be the online version and the student must pay full price for it in order to access assignments. Not allowing students to purchase a used book at a lower price or use an open access textbook is certainly contrary to recent efforts to mitigate textbook costs for students with the "free and affordable books" initiative.

Going Forward

Currently most instruction is being offered remotely. Going to a primarily remote mode for the Fall did result in some challenges different from those we faced in the mid-semester switchover in the Spring of 2020.

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 certainly was not the case with the majority of the classes in the Fall. Most faculty realized that they needed 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. It may be helpful if instructors using a particular platform such as WebEx or Zoom included information in their syllabus or course site on the use of virtual backgrounds or the blurring feature so that students might be able to show their faces but not their environment.

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.[18] 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 a 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 "best practices" category and some into the "something that needs to be done" category. And some recommendations have to do with communicating and disseminating resources that have already been developed but reman underutilized.

The Rutgers University Senate recommends that:

1. 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. All current Learning Management Systems should have a link to this site.
2. There should be a central site that would serve as a University-wide portal to vital student services such as advising, tutoring, mental health services, and programs providing or assisting with obtaining needed equipment as well as contact information for Dean of Students offices. All current Learning Management Systems should have a link to this site.
3. Students requiring specific adjustments as a result of COVID-19 issues should be directed to the Dean of Students office. That office would then be responsible for communicating with all relevant faculty and requesting specific accommodations, or directing students to the most appropriate office for handling their particular issues.
4. During this particularly stressful time, faculty should include information on services available to students, such as tutoring and mental health, in their syllabi.
5. While instruction continues to be primarily online, advisors should discourage most students from registering for more than 15 credits per semester. This advice should also be included in registration materials and sites.
6. Faculty should keep in mind the existing University policy regarding credit hours and the amount of time required to complete all work associated with a course[19] and adjust their requirements accordingly.
7. Schools should consider offering the Pass/No-credit option for individual courses where appropriate for the duration of COVID-impacted instruction.

---

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

[19] **Section** 10.2.4 **Section Title:** Student Academic Regulations & Policies **Policy Name:** *Units of Credit. "The credit value of a course shall be assigned on the basis of the estimated amount of time a median student can be expected to devote to the course, at the rate of three hours a week per credit, including time in class, in laboratory, in conference with the teacher, or in reading, writing and preparing for class*." https://policies.rutgers.edu/1024-currentpdf

8. Faculty teaching asynchronous courses should keep in mind that their students may be enrolled in synchronous courses as well and refrain from requiring that assessments (quizzes, exams) be completed at a specific time or day.
9. The University should systematically address equipment/access issues for students who will still be attending remotely. Information on available programs should be widely disseminated.
10. The University should set up a mechanism to ensure that TAs who are teaching remotely are adequately equipped and trained to teach online.
11. The University should set up a mechanism to ensure that PTLs who are teaching remotely are adequately equipped and trained to teach online.
12. For courses with virtual labs, minimum device specifications needed to complete assignments should be available as part of the information in the online Schedule of Classes.
13. The University Libraries should periodically send out emails reminding faculty of their streaming media services and how to make media available in their online classes.
14. OIT and other online instruction units should turn their attention on working with faculty on creating and using appropriate assessment instruments in a remote environment and should periodically send out emails pointing faculty to their site on Remote Exams and Assessment [https://it.rutgers.edu/remote-instruction/knowledgebase/guide-to-remote-exams-and-assessments/].
15. The University should set up a Task Force that would focus specifically on academic integrity as it relates to remote learning. The Task Force should focus not just on how to police academic integrity, but how to promote it.
16. Faculty should put clear guidelines as to exam procedures and academic integrity into their syllabi. This should include not only information on expectations, but what to do if technology fails.
17. As the University considers the long-term replacement for ProctorTrack, widespread input from students and faculty should be gathered prior to any decisions on a proctoring solution being made.
18. Faculty using video software such as WebEx or Zoom should include information on their syllabi or course sites on the use of virtual backgrounds or blurring features so that students might be able to show their faces but not their environment.
19. The Office of IT Accessibility should periodically send out emails pointing faculty to their guide to Accessibility Resources for Remote Instruction [https://it.rutgers.edu/it-accessibility-initiative/knowledgebase/accessibility-resources-for-remote-instruction/]
20. Course instructors should remind students that those students requiring accommodations should make those needs known early in the semester.
21. Using resources such as the Rutgers Teaching and Learning with Technology (TLT) guide (https://tlt.rutgers.edu/netiquette-%E2%80%93-often-overlooked-policy), faculty should develop remote classroom netiquette guidelines/best practices that recognize current environmental challenges for their online courses and include these in their syllabi.