

FULL SUBCOMMITTEE REPORTS

Report of the Subcommittee on Substantive Curriculum and Modes of Delivery

Charge 1: In light of the Spring 2020 experience, should we attempt to offer the regular fall curriculum or should departments and colleges rethink their general approach to the substantive curriculum, (e.g. more limited course offerings, scope of coverage, altered major requirements, etc.) in order to best ensure high quality online instruction?

In considering this question, the committee was constrained by the large range of options that remain possible with respect to the fall semester. Decisions with respect to reducing curriculum – either required or elective courses – would depend critically on the various modalities. In general, the committee recognizes the large challenges that would be posed in many departments by changes in the number and nature of course offerings and the impact on graduation rates and timing (especially in majors with constrained and proscriptive curricula). Any such decisions would ultimately have to be determined at the department level governed by resources within the college and university.

One option that has been widely considered we believe warrants a negative recommendation: broad rescheduling or restructuring of curricula to shift courses more critically reliant on in-person instructors to the spring and favoring courses that would be more amenable to online instruction to the fall.

Modifications to curriculum course offerings to support a smaller number of high-quality online courses may be appropriate for some programs, especially those with a broad range of elective courses.

In the event of a fully online offering for the fall (no residential component), there will be critical issues for courses where the in-person component is absolutely critical for the learning outcomes (performance-based courses, some lab courses requiring unique facilities). For these courses, programs will need to first consider if the learning objectives can be modified without impacting the overall program or if they can be achieved in other ways consistent with remote delivery. In the absence of any such mitigations, it will be necessary to defer the courses until in-person instruction resumes. Programs should carefully consider the impact of such deferrals on student graduation and curriculum restrictions (pre-requisite courses limiting student options).

Recommendation: Departments and majors should be cautioned against moving courses between spring and fall based on expectation of relaxed social distancing requirements in the spring. As the spring semester may be equally restrictive, shifting a large number of challenging courses to the spring (especially labs) may result in additional challenges and stress for students and instructional staff.

Charge 2: Are there recommended changes in the modes of delivery (e.g., large classes, labs and studios) or the scheduling of instruction to ensure high-quality instruction?

The committee recognizes that there are two distinct course modalities that must be addressed separately: (i) courses that are primarily lecture and/or discussion and (ii) lab/studio courses that require access to specific equipment and/or spaces for optimal instruction and learning. Within each of these groups, there are additional divisions that must be equally considered.

Lecture/Discussion Courses:

Pedagogical data generally indicates that asynchronous delivery is significantly more effective than synchronous delivery for lecture components of online courses, a conclusion that spans course sizes. However, this generalization must be recognized as applying “on average” and individual courses are more nuanced in the most effective strategies. While there is additional time for planning and execution for fall online courses, development of high-quality “flipped” classes (asynchronous lectures and optional collaborative sessions) would likely require time, resources, and faculty interest that cannot be assured. In cases of high instructor interest and sufficient resources, high-quality “flipped” classes are a desirable way to maximize the utility of in-class time and the benefits of asynchronous lectures.

Student and instructional staff surveys also indicate a range of preferences and broad levels of satisfaction with any number of instructional modalities:

- Asynchronous lectures with interactive Zoom sessions (spanning both high and low total contact time).
- Synchronous lectures (with asynchronous option) that maintained connections between the instructors and class helped some students feel more connected to coursework and classmates.
- Hybrid formats with both asynchronous and synchronous delivery, and a variety of interactive strategies.

The ideal format for any given course is likely a complex interplay between the course itself, the instructor style and comfort in an online setting, and the individual student cohorts.

Across all modalities, however, students universally expressed value and appreciation for the ability to view lecture materials asynchronously – either as a substitute for lectures or for review of the material. This was particularly important for international students. Given the need to address students who are remote in any of the fall options (including being quarantined for Covid-19), all courses need to have content video recorded for asynchronous review. Less clear is whether all content, including discussions, needs to be recorded in the online environment.

The instructor workload, in preparing and delivering a course in a new online modality, cannot not be prohibitive/overwhelming. This, in itself, would be counterproductive to the goal of providing quality instruction. Clear guidance and support to instructors on what the expectations are for new modalities is important.

Recommendation 1: Faculty and instructors of record should be given the flexibility to design their course and choose the online teaching modality as they determine will optimize student learning, with departmental approval. All courses must, however, support remote, non-synchronous, participation including video capture of course content. General guidelines and expected standards of quality should be clearly communicated to faculty as early as possible in order to allow for successful adoption.

Expected standards of quality will also have to be practically realizable within the preparation timeframe and the availability of required resources and facilities.

Recommendation 2: Develop and broadly disseminate (through CTI or the Dean of Faculty office) operational resources that provide concrete guidance to faculty on course redesign and implementation. These should go beyond “best practice” concepts to specific, pragmatic examples for rapid adoption by faculty (e.g. full course Canvas sites that are exemplars of target quality or in ADA compliance in different disciplines, and specific course examples of effective online assessments in a diverse array of disciplines).

A key challenge noted by numerous surveys and discussions related to workload expectations and challenges. Students expressed that they felt overloaded (exhaustion) by instructors during the spring semester. Some of this overload may be related to other disruptive events; but it is likely also a result of changing assignments and assessments by instructional staff, and the loss of informal support mechanisms that exist with in-person instruction (e.g. upper-class students within their social network, tutoring). Instructors should carefully review the course content and ensure that the workload (especially in classes that combine synchronous and asynchronous methods) does not exceed that of a normal in-person modality. Instructors should also clearly articulate how online expectations are consistent with the more familiar in-person analogues. (Note: This also drives some of the academic integrity issues (see below) insofar as self-reported violators cited perceived increased workload as a motivating factor.)

Recommendation 3: A common concern raised by students in surveys was the increase in workload after April 6 as faculty transitioned to remote delivery. Instructors should review course expectations and ensure they are no more time-consuming than the in-person equivalent course. Instructional staff should also be strongly encouraged to solicit feedback early in the semester to monitor actual workload and adjust expectations accordingly.

Teaching assistants (TAs) also reported feeling burdened by unrealistic workloads during the Spring 2020 semester. According to the Graduate and Professional Student Reopening Survey, before the pandemic 12.3% of respondents reported working 5 or more hours more than their assigned hours on average, and after the pandemic that number rose to 30%. Some of the reasons for this extra time spent by TAs included an increase in communication with students and other instructors, an increase in administrative work, and extra time spent making online content for courses.

Recommendation 4: In collaboration with the Skorton Center, clear guidelines should be established for how faculty members should supervise teaching assistants during the pandemic, including the setting of reasonable expectations, both emailed to all faculty and supported through CTI or Skorton Center workshops. The Skorton Center has already hosted virtual faculty workshops on supportive mentorship of graduate students during the pandemic that could potentially be expanded to a wider faculty audience.

Many graduate TAs also reported that increased emotional work was put on them during the Spring 2020 semester in the form of supporting students in difficult situations. The burden of addressing students’ mental health challenges should not fall on faculty and TAs, who have neither the training nor the time to properly address students’ mental health needs.

Recommendation 5: CAPS should create a handout of resources on how to recognize distress in students virtually and where to send students for help in such situations. CTI and colleges should publicize and disseminate the handout to instructors.

Zoom was a powerful tool for delivering content and for facilitating discussions. In general, the quality of interactions decreases with the size of the groups; small group discussions via Zoom were commonly reported as successful (though not universally) while large group settings were commonly identified as ineffective. Use of “break-out” rooms were similarly identified in many cases as a viable strategy to maintain connections with the class. Additional training in maintaining engagement with students will be critical.

Large Zoom sessions were identified as particularly ineffective. In large classes (and probably all courses), Zoom interactions should be structured to provide for small cohorts. This is also particularly true for interactive TA sessions or discussion groups.

Small group sessions also provide community-building opportunities albeit with challenges arising from time zone differences. While a key opportunity for TAs, there are issues with, for example, international TAs providing live sessions for students in other time zones. Continued training around Zoom capabilities to simulate “consulting hours” is necessary, and an alternative platform to better address multiple students seeking help simultaneously may be appropriate (Zoom was too slow at times).

Recommendation 6: Additional focused training on small group engagement and facilitation within Zoom should be developed and disseminated by CTI. For courses offered in the online format only (large lectures, etc.), this training should be strongly recommended along with direct consultation with CTI or other teaching support staff. Instructional staff teaching in any modality are urged to utilize resources such as webinars.

A highlight of the spring, and noted extensively in student/faculty surveys, was the quality and quantity of support for online instruction through training sessions and “office-hours” offered by CTI and other offices. These will remain a critical element to ensure quality instruction in the fall. Some of the noted comments and needs include:

- Centralized list of resources for instructional staff (e.g. training videos, pedagogical literature, effective small group discussion concepts); much of this already exists.
- Continued development of CTI training materials (webinars, etc.) and CTI Zoom “office hours”. These were generally recognized for being more useful than other web resources (esp. videos)
- Technology assistance for remote teaching (microphones, lights, software, etc.)
- Strategies for incorporating existing co-curricular offerings into classes (identity groups, career services options, niche offerings e.g. museums, library, Botanical Gardens)

The focus of training in the spring centered around “lead” instructors in classes (e.g. faculty). Moving to the fall, intentional training of other instructional staff, and particularly TAs, should be a focus. While they share many of the challenges of the lead staff, TAs also have unique challenges in supporting small group discussion, assessments, and online course support.

Recommendation 7: Continue to support and expand the training efforts within CTI. Include new training specifically targeting support instructional staff in courses including TAs.

Recommendation 8: Once the decision about the fall format has been made, instructors should be pointed towards CTI training resources specific for fall instruction and encouraged to participate.

Recommendation 9: Some departments have been hosting high-quality workshops for their faculty members and TAs. CTI should consider requesting permission to record highly effective departmental-level workshops and making those videos available to instructors in other departments through the CTI website. CTI should also attempt to strengthen communities of online-teaching innovators by creating a separate space for community sharing of techniques and best practices; this will encourage peer-mentoring and local support.

While many faculty members, including those who did not teach during Spring 2020, are facing the challenges of preparing for online teaching with limited time and pre-existing summer commitments, many graduate and professional students who have extensive experience with online teaching technologies are unemployed or underemployed for the summer. (Over 80 graduate and professional students said that delayed decision making about their on-campus summer job prevented them from finding other work this summer, and over 100 PhD students are not fully funded this summer.)

Recommendation 10: The university should consider employing graduate and professional students who have experience with deploying advanced technology in their online teaching practice as additional technical support for course preparation this summer through CTI (in addition to considering employing graduate students as course preparation assistants for individual courses over the summer and as additional TAs during the fall).

Lab / Field / Studio / Performance Courses:

Labs, field, performance and studio courses (referred to generically as “labs”) present unique challenges in any online environment due to the critical requirements for equipment, space and facilities. Strategies that exist for transitioning lecture/discussion courses do not necessarily translate for any number of reasons, including even options for compressed schedules.

Detailed discussion around this challenge is included in Appendix B.

Addressing courses with strong in-person needs will be challenging and highly dependent on the nature of the material. The guidance in Appendix B provides general principles and strategies that will need to be adapted for the specific circumstances. There are two specific recommendations that the committee would put forward.

Recommendation 11: In any of the models for fall instruction, lab and studio instructors should explore options to adjust learning objectives (without significant negative impacts) to enable remote format instruction. For example, lab courses using simulators, remote control, or home kits for the hands-on component might focus more strongly on objectives involving data analysis, presentation skills, and teamwork. Studio and performance courses shifting to visiting artist performances/interviews and individual work might highlight objectives involving pedagogy, history, and theory.

For any fall modality that includes an in-person instruction component, there should be priority in scheduling and room allocation for courses where the in-person component is absolutely critical. These include labs where there very limited (or no) alternatives to in-person activities due to the nature of the lab itself or the requisite skills. Examples include:

- Labs dependent on growth cycles that cannot be compressed (e.g. plant growth, animal models, plant identification)
- Hands-on animal labs and anatomy dissections where existing simulation and virtual reality alternatives remain significantly less effective (though long-term, VR/AR are attractive)
- Special concerns for studio/performance courses where zero-latency “communication” is critical
 - Audience proximity with (near) zero-latency audio and high-resolution video, often with specialized studio spaces, specialized instruments, and/or supplies. Internet-based tools have proven extremely poor for music and art (quality / latency)
- Architecture and art studio courses involving physical art materials
- Courses involving specialized equipment located on campus

Requests from programs for priority scheduling should base their cases not only on the content of the individual course (how learning objectives can be met only with in-person activities), but also on its curricular context (crucial gateway course, major requirement that cannot be offered in another semester, etc.).

Recommendation 12: If some courses are held in-person in Fall 2020, provide absolute scheduling priority for classes where in-person is the only viable modality. Faculty and departments should base criteria for prioritizing in-person classes both on the content of the individual course and on its curricular role (crucial gateway course, etc.) These courses must still have structures in place to address students in quarantine.

Other suggestions from the committee that did not rise to the level of recommendations:

Communication between students and instructional staff also limits the effectiveness of the online teaching modality. While some instructional staff made extensive uses of multiple communication opportunities, in other cases communication was very limited. Communication preferences also vary between instructional staff and students (Canvas, direct e-mail, Slack, etc.). One potential suggestion would be to strongly encourage instructional staff to use Canvas for formal communication of course requirements and due dates; this would increase the utility and effectiveness of Canvas’s calendar.

On the other side, students have limited options for expressing concerns related to their courses. An interesting suggestion was to formalize an ombudsman position for students to relay course concerns (e.g. excessive workload, fairness or equity concerns). However, there are several open questions including:

- Should the ombudsman be at the department, college or university level?
- Would staff, faculty, graduate students, or undergraduates be appropriate given the sensitive nature of discussions but equally the need to ensure students are comfortable bringing forward concerns?

- How would this position manage student “expectations” around what is and is not appropriate for discussion (e.g. grading rubrics – no, excessive workload – yes, challenges of changing deadlines – likely)?

Charge 3: Would we make spring and summer offerings more robust for 2021 and beyond should online instruction continue beyond the fall?

The committee struggled with the meaning of “more robust” within this charge. With respect to coordination of curriculum across semesters (e.g. shifting courses between fall and spring), the issues of robustness would depend critically on the structure of the fall calendar. Consequently, it is difficult to make any recommendations until there is clarity on the modality and format of the fall semester.

Two suggestions were identified with potential both as an opportunity in the current crisis and as a long-term potential for curriculum enhancement.

- Provide additional funding / support to innovate in a small number of courses
 - Provide funding for faculty/grad students to create novel online courses that would be available longer term for winter and summer session offerings
 - Modelled after, for example, Buttrick-Crippen program

- Create “Cornell Open Classroom” video feed (playing on our website, YouTube, etc.) featuring short (15-minute max) videos of online teaching materials submitted by faculty.
 - Showcases the broad range of courses at Cornell to combat impressions of online education as a commodity
 - “Free” for faculty who are already producing videos for their online teaching
 - Can repeat videos so no need to generate 24 hours of contact per day
 - Could also feature short videos from lab or fieldwork sites focused on potential undergraduate experiences
 - Could also feature short videos from “co-curricular” groups and international learning hubs
 - Related idea: weekly podcast featuring a faculty member talking about some of the most interesting problems or ideas students could learn about in their courses

Recommendation: Given that there is no firm evidence that this pandemic will not extend into the spring semester, instructional staff should be encouraged to have contingency plans in place for spring and summer offering to include the online option. Many of the elements of online formats, including lecture content available for off-line viewing, would likely be valuable to students long-term with a return to full (normal) residential model.

Charge 4a: Should online instruction be sequenced or staged, e.g., only upper-class or only freshman fall instruction?

Charge 4b: How would we make such decisions?

Recommendation: None. This is an issue that must be addressed by C-TRO, not an issue of online instruction.

Charge 5: Grading and academic integrity policies – should we continue with or change Spring 2020 approach?

Assessment and academic integrity issues were identified as key challenges in the earliest discussions of the transition to remote delivery in the spring. It is critical that this issue be addressed, for the benefit of both students and instructional staff. There exist three distinct questions that need to be addressed:

- Grading policy: Normal grading expectations, student option S/U, or all S/U are the key options
- Assessment modalities: Especially between (high-stakes) exams or other assessment tools
- Academic integrity: How to maintain academic integrity, and how to address infractions

Grading policies: The exigent circumstances in the spring prevented deliberate consideration of alternate assessment plans, and limited time to address equity issues with students around such elements as access to technology (internet speeds, printers) and learning environments. However, moving into the fall, the committee believes it is necessary to move toward a more conventional model for grading that recognizes changed instructional modalities without significant changes in the curriculum structure and quality.

- Grades are an essential tool for many critical functions, such as gating affiliation for programs (CS in particular) and graduate / professional school applications
- While alternate assessments could be used for some functions, such as competency exams for affiliation after return to residential operation, there are downsides including additional stress on students from these high-stakes exams.

Recommendation 1: The committee believes that any university-level decision on a grading policy should be definitive (to provide clarity to students and faculty) with any change only occurring under the most extreme of situations. The majority opinion is that grading policies should return to the conventional graded format with a suggestion that faculty consider the student option (letter or S/U) if appropriate. The majority does not believe either mandatory S/U or universal student option (student choice of S/U or graded in all courses) would be appropriate as we move forward.

However, it should be noted that there was a very strong minority opinion from student members of the committee that adopting a universal student grading option would help address the underlying inequities in learning during the pandemic including time zone issues, unequal home environments, and illness/bereavement, while allowing students to choose the grading option that works best for their needs and situation.

Recommendation 2: If the fall structure mandates a large fraction of students in remote (home) online learning situations, resources should be prioritized to ensure students are not disadvantaged by this model due to technological limitations or learning environments. Flexibility with respect to course requirements, timeframes, and metrics will likely be necessary to achieve this goal. Ensuring faculty understand the challenges will also be a necessary communication. The university must also provide sufficient financial resources towards securing technology solutions for these students.

Assessment modalities: Within the residential instruction model, in-person exams have evolved as an efficient assessment that in many cases are not necessarily the best assessment. The online environment provides the need, as well as an opportunity, to encourage faculty to consider alternate assessments that address and challenge more creative expressions from students.

Recommendation 3: CTI should identify and/or develop resources to help faculty to move away from exams to alternate assessments including projects, presentations, design efforts, etc. in courses where such assessments are appropriate. Wherever possible, these resources should include concrete exemplars from a range of disciplines alongside more general guidelines.

Academic Integrity: The town hall meeting with AIHB (academic integrity hearing board) chairs and interested faculty confirmed many of the challenges with academic integrity in the remote delivery modality. The general consensus was that violations increased by at least a factor of two and in some cases may completely overwhelm the adjudication procedures in the Academic Integrity Policy. Online sites such as Chegg, Course Hero, and Varsity Tutors provide increased opportunity for infractions with limited potential for discovery (with CS as a notable exception given technical tools to monitor for code commonality).

There are multiple approaches to addressing AI issues, but most center around either a “top-down” effort to ensure exam integrity (e.g. proctoring, lockdown browsers) or around redesign of assessments (e.g. heavier reliance on essays, homemade question banks etc.). While the latter is clearly preferable, it requires considerable effort to design fair and meaningful problems and are often time-consuming to grade as well. However, shifting the emphasis of assessments from conventional high-stakes exams will be a necessary part of the online assessment strategy.

Addressing this issue will require substantial focus, diligence and potentially resources. There does not seem to be *appetite* for extensive and invasive online proctoring of high-stake exams, but this needs to be included within a menu of options where other solutions are not viable. There is unlikely to be any technical solution that can broadly address this issue, but there are several that can help to mitigate the potential and reduce the impact.

Some level of central coordination, especially around the internet-based sites, will be critical. Distributed effort among the various colleges leads both to unnecessary duplication of effort, but also reduced efficacy due to limited knowledge.

Recommendation 4: In discussions of the fall academic calendar options, the impact of schedules on academic integrity should be carefully weighed. The committee strongly believes that calendar options that include in-person exam periods (either at the end of the semester or after a significant portion of the semester) would be the most effective means to minimize academic integrity issues around exam-type assessments. Addressing academic integrity must, however, be balanced against other challenges raised by in-person exams including TA and student safety, psychological stress of high stakes assessments, and logistical challenges of administering both in-person and remote exams for a single course.

Recommendations 5: The committee recommends a three-pronged effort to manage academic integrity in an online environment: (i) education and discussion, (ii) reduction of motivation and opportunity, and (iii) coordinate efforts to address infractions at the university level. Details of these recommendations are more fully enumerated in the full report. Key elements include:

Education and discussion: Academic integrity be intentionally discussed during the early weeks of an online semester and expectations clearly defined for students and faculty in course syllabi.

Assist efforts to address infractions at the university level: The committee recommends the creation of a central office (likely under the Dean of the Faculty’s office) that would be able to assist unit

AIHBs in addressing time-intensive investigations and large scale violations of Academic Integrity, including coordinating discussions with online sites such as CourseHero and Chegg.

Reduction of motivation and opportunity: Reduced reliance on high-stakes exams and structuring of assessments can significantly decrease potential for AI violations. However, the committee is keenly aware that many options are applicable to only a subset of courses and that many options entail significant faculty/staff effort. Despite the challenges to maintaining academic integrity in online exam formats, we do not believe that online proctoring is a viable solution.

More Extensive discussion of these recommendations:

Education and discussion: Academic integrity be intentionally discussed during the early weeks of an online semester and expectations clearly defined for students and faculty. Key elements:

- Required **Course Academic Integrity Policy** section in all syllabi with explicit statements about what is and is not permitted. This should be particularly detailed with regard to exams, use of online resources in homework and exams, and collaborations.
- Disseminate recommendations for faculty (through the Dean of the Faculty office) to develop and reinforce a sense of “community at a distance” to discourage AI violations (perhaps useful but probably of limited direct impact).

Coordinate efforts to address infractions at the university level: The committee recommends the creation of a central office (likely under the Dean of the Faculty’s office) that would be charged with coordinating Academic Integrity investigations and resolutions across the campus. This office would, for example,

- Coordinate centrally orders for removal of copyright materials from sites such as Course Hero and Chegg
- Negotiate with sites to obtain identifying information on violators (IP addresses, accounts) that could be used to support investigations within colleges
- Proactively monitor sites for activity in coordinate, especially, with early gateway courses where violations are most prevalent
- In the event of large-scale violations in a course, empower this entity to facilitate and manage primary hearings to reduce impact on teaching staff.

Reduction of motivation and opportunity: Reduced reliance on high-stakes exams and structuring of assessments can significantly impact potential for AI violations. However, the committee is keenly aware that many options are applicable to only a subset of courses and that many options entail significant faculty/staff effort. In parallel, there are relatively low-cost solutions that will help the university address and manage some of the online sites. This is a menu of options that will only be appropriate for a subset of courses.

Managing online sites and tracking students that contribute materials to these sites:

- Encourage inclusion of copyright notices on all materials downloaded to students; the existence of the copyright will facilitate demands for offending material to be removed from online sites
- CTI and CIT explore and/or develop the ability to watermark PDFs that are downloaded by students from Canvas (much like research articles). While this can be circumvented by students, it increases the effort and makes distribution to offending sites an intentional decision

Proctoring options:

- We do not believe that online proctoring is a viable solution to the academic integrity issues

Exam modifications:

- Shift exams from short / specific answer to open-ended and complex questions
 - Difficult to implement and grade in large courses
- Oral exams (in-person or recorded with random check)
- Use of one-way (non-return) questions in exams through Canvas; for maximum security choose options to display just one problem at a time and disallow backtracking
 - numerous issues including additional stress to students
 - pedagogically undesirable but may be a necessary option in some circumstances
- Question banks for multiple choice ... effectively different version for different students
 - Training from CTI for Canvas tools to randomize values / randomize physical situation
 - Alternative would be N exams for a given course, randomly assigned
- Random or selected in-person “recheck” via oral exams / discussion
 - How to address bias in the recheck? This was a significant concern in the committee.

Exam scheduling:

- University scheduling of exams to minimize overlap for students, and pressure of multiple assessments
- Reconsider recommendation of more numerous, but lower weight, assessments in the online environment; students indicated increased stress / work from this increase
- Provide alternative options to the Spring 2020 requirement of a mandatory 24-hr window for exams
 - Enable faculty to provide two options for timed exams 12 hours apart to address time-zone challenges
 - Provide faculty with guidance on advantages and challenges of 24-hour (or longer) untimed exams

Charge 6: How do resource limitations (TA time, faculty time) impact the quality of online courses?

Numerous issues have been identified in this report where resources are anticipated to be a major concern. These have no easy answers and it is unclear if there are actionable recommendations that this sub-committee can suggest. But there are issues that need to be addressed at some point:

Recommendation 1: The committee identified numerous specific needs as well as opportunities to enhance the effectiveness and robustness of online content delivery. Many of these recommendations require additional resources. We recommend the formation of a new implementation committee, including representatives from finance, to look at key resource challenges.

- Identifying and funding sufficient TA resources to manage increased numbers of sections in a hybrid model
- Identifying potential support (e.g. for graduate students) to assist faculty with course development over the summer
- Managing the scalability of training and support resource within CTI and CIT – both of which are heavily leveraged already to support the transition

Managing Course Interruptions: Independent of the fall format, some faculty, TAs, and other instructional staff are likely to become unavailable due to Covid-19 or other medical situations (which may be more frequent than normal given the critical focus of the medical system around Covid-19). Instructors may also struggle with other issues (e.g. death of a family member) that will impact their ability to teach.

Courses do not generally plan for extended instructor absences, and few instructors include this possibility within the syllabus. Graduate TAs support in courses will also be impacted. While there is no official TA sick day policy at Cornell, the graduate school has indicated that TAs will not be dismissed if they are self-isolating due to coronavirus. It may be appropriate to formalize these protections for the fall to address likely situations.

All classes should include in their syllabus contingency plans in the event of instructional staff (including TAs) unavailability (for any number of possible reasons). While there is unlikely to be a universal solution to this issue, several potential solutions can be suggested:

- For asynchronous online classes, lectures and content could be developed and recorded in advance and be available to continue uninterrupted. This would provide a buffer for absences, with a recommended two-week buffer to cover most contingencies.
- For synchronous and highly interactive courses, optional topic(s) (tangential project or theme) could be included as part of the syllabus. In the absence of any disruption, these topics would be introduced in the last weeks; if there is a disruption, such topics would be covered early.

Contingency plans would need to also recognize other staff limitations, especially time constraints from modified responsibilities. For example, simply transferring responsibilities to remaining TAs would likely result in excessive workloads and would be inappropriate. Discussion and validation of contingency

plans should be completed before the semester begins to provide time for thorough discussion and evaluation, if necessary, through appropriate channels (e.g. ombudsman).

Recommendation 2: The university should formalize a plan to address potential instructional staff absences for fall courses. These would include strongly recommending that all courses have an explicit plan for instructor and/or staff absence for a minimum of the anticipated two-week quarantine period. Faculty should be encouraged to consider longer absences for staff due to actual infections and other conditions.

There was some support among the committee for an explicit recommendation around supporting an official graduate assistant sick day policy for health and mental health issues. While probably beyond the scope of this committee, the graduate school should consider formalizing a policy around TA absences (sick days) for valid physical and mental health reasons. This policy should explicitly assure that TAs cannot be dismissed from their position for failing to complete teaching responsibilities on such days.