

**Bowdoin**

Report of the:

CONTINUITY IN  
TEACHING AND  
LEARNING GROUP

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## SUMMARY

After extensive surveys of faculty and students (pp. 8–11) and informed by the literature in effective online pedagogy (pp. 4–8), the Continuity in Teaching and Learning Group offers our recommendations for an online learning environment that, while different, reproduces the defining aspects of a Bowdoin education (p. 7) and promises excellent learning outcomes.

Starting from the learning goals for their courses, we recommend that instructors, in consultation with colleagues both on and off campus (pp. 26–27), develop online courses that rely on both asynchronous and synchronous student interactions that allow for student flexibility in achieving those goals.

We recommend policies (pp. 18–19), schedules (pp. 19–21), and best practices that will assure equity and accessibility in our students' learning experiences (pp. 21–23) and that decrease the cognitive load facing remote learners.

Furthermore, we recommend training and resources (pp. 24–27) for implementing our move to online learning that provide a clear outline (pp. 31–34) for accomplishing these goals in the weeks remaining before the semester begins.

## INTRODUCTION: Education for a Changed World

How do you convert a two-hundred-and-twenty-six-year-old residential institution located on the coast of Maine into a global virtual learning community in a two-week period? How do you sustain remote instruction amid the physical, economic, and emotional devastation wrought by a pandemic? For the administration, faculty, and staff at Bowdoin College, this unprecedented transformation required a leap into the unknown as well as a return to the fundamentals of a Bowdoin education. First, a call to recollect the essentials of a liberal arts education: “to cultivate students’ ability to engage competing views critically, to make principled judgments that inform their practice, and to work effectively with others as informed citizens committed to constructing a just and sustainable world.” Second, a pledge to stay true to our core values of equity, inclusion, and shared governance. This shift required all of us—the administration, faculty, staff, and students—to face enormous challenges and suffer significant costs. Nonetheless, these fundamental commitments, combined with prodigious labor and unprecedented collaboration, yielded notable successes: technological boosts for disadvantaged students, a responsive and fair grading policy, accommodations to the timelines for faculty review and promotion, seniors graduating on time and completing honors projects, and first-years, sophomores, and juniors accumulating general and major requirements.

Our efforts to secure continuity of teaching and learning have not yet come to an end. While much remains uncertain, we know that the transmission of SARS-CoV-2 will continue. Prudence dictates that we continue to offer remote instruction in order to maintain low-density populations in all classrooms and learning spaces, to provide instruction to all students regardless of location or circumstance, and to ensure timely completion of degrees for our students, should a rapid outbreak necessitate depopulating the campus.

In continuing this work, we will be guided by our vision of a liberal arts education as well as our core values as an institution. This time around, however, we are afforded an opportunity to reflect back on our experiences, to talk with one another, to assess our resources, and to determine how we might significantly improve remote instruction at Bowdoin. To this end, on April 21, 2020, Clayton Rose charged the Continuity in Teaching and Learning (CTL) Group (composed of faculty, staff, and students) “to develop a remote learning and teaching model that will approach the challenge from a fresh perspective while building on the lessons from our current situation.” To complete this task by June 30, the members of this group were invited to “survey students and faculty about their experiences this spring, consult with experienced practitioners,” and “examine institutional structures that might be adjusted to better facilitate remote learning and teaching—for example, different teaching time blocks and modular approaches to the semester.” In what follows, we draw on 1) the latest pedagogical research regarding remote instruction; 2) extensive survey data and interviews with students and faculty; 3) interviews with consultants in the field; and 4) our group’s deliberations regarding the distinctive characteristics of a Bowdoin education (i.e., personal interaction, collaboration, engagement, community, creative expression, risk taking, and service) to delineate the features of a more intentional and integrated remote curriculum. These features include not only best practices for remote instruction but also the necessary supports and tools to make adoption of these practices less onerous.

Our charge was not to address the particular goals of discipline-specific coursework—that is the task of individual faculty and staff. Our aim has been to determine, describe, and advocate for the tools, supports, and policies that will afford an optimal learning experience for all our faculty, staff, and students—an experience that reflects the best of Bowdoin: creativity and improvisation, diversity and inclusivity, agency and collaboration, and community resilience.

We wish to state at the outset that the energy and commitment needed for this next stage of remote and in-person teaching and learning significantly exceeds the efforts expended for the emergency pivot to remote instruction this past spring. There are several reasons for this. First, the scale of the undertaking is much larger. It is not a matter of finishing out seven weeks of instruction, but of planning an entire semester’s curriculum. Second, student expectations, as well as those of every constituency at Bowdoin, are undoubtedly higher this time around. Third, much of our world has changed since March 6, 2020—a massive loss of life and jobs, the imperative to remain at a physical distance from each other, and the growing recognition of the appalling inequities and injustices that have long shaped life around the world. These changed circumstances demand—from everyone at Bowdoin—fundamental alterations in how we think, move, teach, learn, live, and identify. The prospect is daunting. It is also an unprecedented opportunity to rededicate ourselves to a common good that is truly and unrestrictedly “common.”

## From Remote to Online Learning

*“The present crisis forced my hand and, in truth, pushed me to become a better teacher.”<sup>1</sup>*

*“I feel like I suddenly have much more insight into what I want to achieve, and so of course I have all kinds of ideas for how I can intentionally try that in an online classroom. It’s such a sense of liberation!” (Bowdoin faculty member)*

The terms “remote instruction” and “online instruction” are often used interchangeably. Both take place via the internet, as opposed to within the walls of a classroom, lab, studio, or performance space. The difference is that the first entails temporarily transitioning content designed for face-to-face instruction to the internet, whereas the second is the purposeful design and implementation of a course for delivery online.<sup>2</sup> Thus, Bowdoin’s spring semester was an instance of remote instruction, whereas planning for the fall entails the development of online teaching and learning. Change of this scale is difficult for everyone. Our faculty have worked hard to become adept at the myriad elements of classroom instruction. Now they find themselves in an unfamiliar space having to learn new tools and to cross strange distances. So, too, online courses—the number of which is increasing every year—were originally designed to suit the needs of more mature students looking to fit one or more courses into a schedule that included significant hours given over to employment and/or child and eldercare.

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1 Manya Whitaker, “What an Ed-Tech Skeptic Learned About Her Own Teaching in the Covid-19 Crisis,” *Chronicle of Higher Education*, June 15, 2020. <https://community.chronicle.com/news/2357-what-an-ed-tech-skeptic-learned-about-her-own-teaching-in-the-covid-19-crisis?cid=VTEVPMSED1>

2 “Remote Instruction vs Online Learning,” University of California, Davis, <https://keepteaching.ucdavis.edu/teach/planning-remote-instruction/remot-instruction-vs-online-learning#:~:text=Remote%20Instruction%3A%20Moving%20content%20designed,support%20online%20teaching%20and%20learning.>

These more mature students often bring to their online coursework the self-regulation skills of motivation, discipline, organization, and planning that are necessary for success.<sup>3</sup> Such skills are still developing among undergraduate students; moreover, managing a full-time course load is difficult to combine with many hours spent in a job and/or providing family care. We must not lose sight of the need to be flexible, caring, and responsive to our students as they grapple with myriad challenges. So, too, it is imperative that the same be extended to our faculty and staff.

Emerging work in cognitive science and online pedagogy point to features of online technology that improve learning. For instance, during an online class, students listen, write, and watch and then have opportunities to review content and to ask questions about what they missed or did not understand. Online learning provides more structure for students to access in support of their learning. Questions can be asked and answered more frequently in an online learning environment. Providing an interactive course outline in a consistent learning management system (LMS) like Blackboard connects the course tasks sequentially and provides a consistent platform to find answers to questions and deadlines for next steps. Flower Darby and James Lang, authors of *Small Teaching Online*, emphasize that creating a routine, posting deadlines, and making instructions available to students facilitate students' taking ownership of their learning. We expect that faculty will benefit from retaining features of online instruction developed this fall even after we return to in-person learning in the future.

According to Michelle Miller, author of *Minds Online*, the key features that build student engagement are the following: agency (giving students choices); social-relatedness or a sense of belonging; and self-efficacy (confidence that one can be successful). Multiple studies have concluded that academic self-efficacy is a powerful predictor of academic success. In other words, students believing they can succeed is a powerful motivator. In order to spark this sense of self-efficacy, Miller recommends that instructors take heed of the features that make online games so engaging: the ability to quickly jump in and give it a try, multiple tries so that failure is not such a big deal, rapid feedback, and a sense of purpose—the why of what they are doing. As Miller notes, it is not enough to tell students the learning goals of the course; instructors should also tell students the purposes of the course. In short, not just *what* they will learn, but *why* they are learning it. Research by Miller, Darby, and Lang, as well as feedback from Bowdoin faculty and students, acknowledged that **activities that resonate with students' experiences** (such as reflection writing and spontaneous debriefing) and **collaborative projects** mitigate the loss of immediacy provided by in-person classroom environments and help to foster a sense of belonging.

We enjoin our faculty colleagues to be open to the possibilities afforded by so much change and to consider the insights expressed in the quotations above. Having to shift to a new medium and to learn the attendant technology of doing so is an opportunity to be sure our instruction yields measurable learning for all our students. This shift forces us to be intentional and innovative, to learn new ways of organizing and presenting data and to employ new modes for being present to one another. In the process, we will be reminded that no medium is a guarantor of effective, equitable, and caring instruction and that the skills and sensitivities for such instruction transcend the medium of delivery and will be even sharper when we revert to in-person instruction.

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3 *Small Teaching Online*, Introduction.

In the document that follows, we are not proposing an online academic program that duplicates the myriad experiences that can only be had in the sustained residential context that we cherish at Bowdoin. We implore our colleagues and students to consider that residential instruction and online instruction are two different venues and that continually comparing them is bound to generate disappointment. Taken on its own terms, a well-designed online instructional program affords our students deep learning, discipline, initiative, and agency, as well as a sense of community. Moreover, leveraging the pedagogical lessons and technological tools of online instruction not only provides continuity of instruction amid unavoidable future illnesses and emergencies, it promises to enhance our traditional model of instruction by permitting multimedia engagement; resources for preparation, review, and practice (especially as an academic bridge for pre-matriculated students); more flexible one-on-one interactions and opportunities for advising; supplemental contact and discussion hours for performance ensembles; an archive of faculty mini-lecture videos for use across disciplines; and opportunities for students to hone their presenting and performing skills in innovative ways. We certainly do not anticipate, let alone welcome, an eclipse of in-person learning by online instruction. Nonetheless, it makes sense to envision the ways in which we might continue to deploy the insights, capacities, and resources we are in the process of building.

## Guiding Values for Bowdoin: SUCCEED

Drawing from Bowdoin's vision of a liberal arts education and the institutional values of equity, inclusion, and shared governance that should govern interactions between representatives of all the constituencies at Bowdoin (administration, staff, faculty, and students), we offer the following values to guide course design so that all Bowdoin students have the necessary infrastructure for their flourishing as learners and leaders:

- **S**tudent-Centered Learning: Content and assessments reflect consideration of students' needs, ideas, and aspirations.
- **U**niversal Design: Course materials and resources are accessible to all students.
- **C**onnectivity: Students have access to a stable learning environment.
- **C**ommunity: Courses build in opportunities for student collaboration and connection.
- **E**quity: All students are provided the resources and instruction needed to achieve the course goals.
- **E**ngagement: Students are actively involved in their learning.
- **D**iversity: Students are challenged with voices and viewpoints other than their own.

These values are not new to Bowdoin. They are the basis of the pedagogy that informs the Baldwin Center for Teaching and Learning, student affairs' staffing and training, and faculty and administrative initiatives for diversity and inclusion. The shift to online education presents us with an opportunity to formalize these values, rededicate ourselves to them, and design courses accordingly from the very start. In the sections that follow, these values will inform and be elaborated by our numerous and specific recommendations.

“Equity” is particularly important, given the recently increased recognition of systemic inequities that govern who dies, lives, and thrives in the contemporary United States and that some of our students do not have access to the resources needed for the sustenance, time, and technology necessary for continuing their education off campus. Creating equity involves providing personalized resources needed by all individuals to reach common goals.<sup>4</sup> Equity as applied to teaching and course design may be elaborated as follows: “Inclusive teaching involves deliberately cultivating a learning environment where all students are treated equitably, have equal access to learning, and feel valued and supported in their learning. Such teaching attends to social identities and seeks to change the ways systemic inequities shape dynamics in teaching-learning spaces, affect individuals’ experiences of those spaces, and influence course and curriculum design” (Center for Research, Learning, and Teaching at University of Michigan).

Faculty can design and deliver equitable instruction only if ongoing attention is paid to ensuring responsive and equitable policies governing faculty expectations, workload, and representation. The same must be true for the numerous staff across the College whose expertise and effort are indispensable to the project of educating and caring for Bowdoin students. This work is a collective effort for and by everyone. If Bowdoin is to help usher in a future composed of sustainable communities and free individuals, *no one* can be excused from the work of equity.

## Lessons from the Spring 2020 Semester

In order to support faculty efforts to quickly translate their courses from an in-person to an online format this past spring, staff from academic affairs, the Library, information technology (IT), academic technology and consulting (ATC), and the Baldwin Center for Learning and Teaching (BCLT) teamed up to design and launch a landing page for Continuity in Teaching and Learning, to offer workshops on various platforms (Zoom, Ensemble, Teams, Blackboard) and course-related software and techniques, to offer materials and guidance on pedagogy and instructional design, and to facilitate conversation and collaboration among faculty. In addition, departments, programs, and cocurricular units were assigned library and ATC liaisons to help procure course materials and to supply course-related troubleshooting, respectively. A Teams site provided faculty and staff with real-time Q&A, links to resources, and suggestions for best practices. At any point, faculty could avail themselves of one-on-one assistance from staff in ATC, IT, the Library, and BCLT. The expertise, professionalism, and unflinching good humor of these staff members—along with an unprecedented surge of collaboration among faculty members—generated a profound confidence in our in-house talent, as well as a desire to build on the momentum of these new relationships. We regard the maintenance of these relationships as critical to our achieving excellence in remote instruction.

### Feedback

Starting in mid-April, faculty focus groups were formed in order to share ideas and to reflect on their experiences with the spring pivot to remote instruction. These focus groups were formalized as subcommittees by the CTL Group in order to gather feedback from faculty teaching in the following specific formats: *lecture courses, discussion courses, performance-based and language courses, and lab courses.*

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4 Equity Education, <https://eqeducation.org/>



In early May, the Office of Institutional Research, Analytics, and Consulting sought feedback from the CTL Group to design a student survey that would solicit students' assessment of and reflections on their experiences with remote instruction. More than half of the student body (56 percent) completed the survey and provided comments in the open-ended portion of the survey. Later in May and into June, student focus groups were convened that provided details about software platforms, class expectations, and obstacles to learning.

The feedback from the faculty focus groups and the student survey indicates that reducing the faculty's and students' cognitive load in navigating online courses would provide a significant boost to students' ability to engage with the course material and feel confident about faculty expectations for their courses. (62 percent of student survey respondents agreed or strongly agreed that they found it challenging to understand what faculty expected of them.) Students reported being frustrated by the use of multiple platforms and emails even within a single class. They requested a single platform for locating readings and videos and for uploading assignments. Many faculty members were also unaware of various features on Blackboard that would have facilitated easier access to and assessment of course materials. The need for better design and integration of courses in a coherent course "shell" is a clear priority for the next academic year.

Many faculty members started out on Teams, but then switched to Zoom because it afforded an opportunity to see more students during synchronous discussion. (Both Zoom and Teams can show up to forty-nine participants at a time.) Similar to faculty, students thought Zoom was better for discussions, screen sharing, and personal interaction, although many were uncomfortable seeing themselves within the Zoom screen. Faculty, students, and staff found Zoom more user-friendly, with the options to "raise hand" and respond "yes" or "no" an added benefit. In Zoom, the host has control over breakout rooms; in Teams, participants have more autonomy and can create their own channels to use asynchronously as well as synchronously. Zoom had more response features (e.g. thumbs up and polling); class documents can be stored in Teams. For a combination of the two, Zoom meetings can be initiated from within Teams. We note that both of these programs are being enhanced regularly and that Teams was recently updated to add many of the user-friendly features seen in Zoom.

Feedback from faculty and students also revealed key existing strengths that will be necessary as we move into the next stage of remote instruction. Students noted that Bowdoin faculty maintained high-contact, caring relationships with them. These were especially important for those who found it difficult to function as a student in a home environment that required them to respond to family obligations, a lack of resources, and the impacts of the pandemic. The academic resource that was used most during the online weeks of this past spring semester was office hours: 58 percent of students reported relying on office hours, and 95 percent reported being satisfied or very satisfied with this resource. In addition, 82 percent disagreed or strongly disagreed that they found it challenging to contact faculty, although they recommended that faculty post and hold online office hours on a weekly basis, much as they did on campus. In student focus groups, many students noted that they immensely appreciated professors personally reaching out to offer help, check in, or create space for one-on-one interaction.

Students—similar to professors—preferred teaching formats that coupled real-time interaction between students and professors with asynchronous components. Students noted that synchronous meetings facilitated learning, structured their time, promoted community, and were the best possible replication of an in-person Bowdoin education. Asynchronous components allowed individuals to learn at their own pace—re-watching or rewinding the content if necessary—and improved student engagement during synchronous meetings. Although there was no consistent consensus concerning the portion of a class that should be conducted asynchronously versus synchronously, students agreed that coupling these teaching methods was crucial for educational success, and this is reflected in our recommendations below.

A number of faculty reported that getting students to engage in their large classes was challenging. They cited a number of possible reasons for this: lack of familiarity with and resultant fatigue of online communication, the grading policy, additional demands on students' time, students' lack of privacy, equipment problems, and unstable internet. Faculty in smaller synchronous classes reported little difference between their online and in-person experiences from before break. Indeed, some offered that discussion seemed to flow even more freely, as students seemed less inhibited in this medium or perhaps felt more connected given the common crisis. A number of faculty members divided their larger classes into smaller discussion sessions (e.g., Zoom breakout rooms, "learning communities," and time-zone dependent group discussions). Nonetheless—and this is a point that should be underscored—holding multiple live discussion sessions throughout a week or even a day takes tremendous amounts of faculty time and energy.

Maintaining the intimacy and engagement afforded by smaller, live group discussions should be a priority going forward. (64 percent of respondents reported that live discussions were the most conducive to their learning.) Nonetheless, doing so will be one of the biggest challenges facing faculty and students. This is so for two reasons. First, this imperative will entail dividing a large class into several smaller sessions to facilitate engagement and conversation, and the resulting burden on faculty will be exceptionally heavy. Second, many faculty members expressed, on several occasions, concerns as to how they would build relationships with students and between students in classes that would be remote from the start. Indeed, these same faculty members attributed their classes' success to their already having bonded as a learning community before spring break. Because of the time-intensive nature of online courses with large enrollments, we recommend that departments be watchful of burdens on junior faculty who may be teaching these courses and mitigate these burdens as appropriate for the department.

### **Common Recommendations**

There are several common recommendations shared across the subcommittees that gathered feedback on lecture-based courses, discussion-based courses, lab-based courses, and performance-based courses:

- synchronous online classes need to be small: divide synchronous time into small group meetings instead of a longer, full-class sessions
- use breakout rooms for discussions with groups of four to five students maximum
- training in online community building will be essential for fall courses
- clearly stated, consistent online etiquette should be established early on in courses
- involve student assistants extensively to support courses
- divide lecture videos into multiple six to twenty-minute segments (shorter is better, and they must be captioned)

The reasons for and elaboration of these recommendations for course organization are detailed on the following page.

## Lectures/Discussions

Although some faculty lectured synchronously, most prerecorded their lectures with the expectation that students would watch them before class so that class time could be devoted to answering questions, general discussion, and other activities. One potential problem with this approach, particularly from the student perspective, is that it can increase the amount of actual time spent “in” class. If students watch thirty minutes of prerecorded lecture outside of class and then attend an hour and a half in class twice a week, for example, their time spent in class increases from about three hours a week (for in-person courses) to four hours per week (for the same course taken online). Faculty also noted that prerecorded lectures generally contain much more content than a lecture of similar length delivered in-person—there is less repetition and time spent answering questions or dealing with the sort of interruptions common to a classroom, not to mention fewer asides and jokes and all the other techniques faculty typically use to maintain their audience’s interest. This means, for example, that a ten-minute prerecorded lecture might contain as much information as a thirty-minute lecture. Faculty should recognize the need to keep these synchronous vs. asynchronous length differences in mind when calculating actual class time. Because prerecorded lectures contain more concentrated information, students might need to watch a prerecorded lecture several times before fully comprehending it. On the other hand, more than a few faculty members were disappointed to realize many students simply didn’t watch the lectures before class, or at all.

As for prerecorded lectures themselves, most, but not all, found it best to keep them brief and certainly **no longer than twenty minutes**. Faculty tried to combine their lectures with PowerPoint or other technologies. Several faculty emphasized the importance of personalizing prerecorded lectures. Rather than immediately beginning with course content, some would chat about themselves or things going on in the College or even turn their cameras around and show their students the view outside their window.

## Recommendations

### *Lecture Formats*

- Voiceover a slideshow
- Screencast or screen recording
- Recording of just the lecturer

### *Preparation and Delivery*

- Decide what notes, materials, or props you will need in advance.
- Comments from students and from the literature on remote instruction indicate that shorter, more focused recorded videos of six to ten minutes would be more effective than longer recordings. The shorter the lecture, the easier it is to download or view on a mobile device and to remain focused on the content.
- Speak at a normal pace or slightly faster to keep viewers attentive and engaged.
- Some say the camera drains 50 percent of enthusiasm. Add some visible energy to make up for this.
- Include some personal references (an occasional anecdote or attempt at humor; don’t force it, whatever’s natural for you).
- Be sure students see your face at least occasionally.
- Record in a well-lit, simple background, quiet environment.
- Practice at least once in advance lecturing to the screen.

### *Content*

- Use visual materials that complement verbal instruction to reduce cognitive load.
- Break up text in slides, using animation or its equivalent. "Online, maybe even more than in class, students will read first, listen second."<sup>5</sup>
- Don't be shy about using relevant high-quality videos you find on the web.
- Include question(s) or exercise(s) at the end or staggered throughout to encourage active engagement, reflection, and reinforce understanding.

### *Accessibility*

- Include captions before uploading for class (we know this is not possible for some foreign languages)
- Provide slides in advance in consistent, easy-to-access formats (PDF)

**Synchronous time** in classes is a precious commodity and an opportunity to **create community**. Some ways to use synchronous time to create class community include:

- Divide class into even smaller groups of students to work with each other in breakout rooms (Zoom) or their own channels (Teams) while you drop in to help guide their activity.
- Create small homework teams (of three or four students) that meet independently to follow up on activities started together.
- Set aside a few minutes for students to chat socially with each other, either with or without you, e.g., at the beginning or end of class. This could be a natural time for students to be encouraged to turn cameras on.

### *What if your class is very large?*

Perhaps you alone can't meet every small group for that much time every week. Design ways for students to meet in small groups without needing you to be present all the time. For example:

- Student teaching or learning assistants (TAs or LAs) could meet with the groups. (More information on this in the faculty and staff support section below.)
- Designate students in the class to lead discussion or other activities as part of their learning experience.

In order to encourage **engagement during synchronous sessions**, consider the following:

- In-class polling.
- Shared digital whiteboards.
- Student projects and presentations.
- Screen sharing for students to show their work/ask questions.
- Question of the day that is responded to in the chat.
- Working through the class list and asking each student to respond verbally or in a chat what questions they have for the day.
- Asking a question and then leaving the screen while students discuss it among themselves for a few minutes.
- Asking students to prepare for class with a discussion board post and asking students to share or elaborate on specific ideas from their posts to stimulate discussion.
- Student sign-up to take turns leading discussion.
- Assigning roles to group members during group work, such as chat monitor or facilitator.
- Encourage students to keep their video on if feasible.

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5 Harvard University, "Best Practices for Remote Instruction, <https://teachremotely.harvard.edu/best-practices>

*Discussion board posts* had limited success. Fifty-two percent of students who used this resource noted that it was the least conducive aspect of their learning experience and amounted more to fulfilling a required number of posts than engaging with the material at hand. Some commented that discussion boards can be a useful supplement to the learning experience (especially for lecture-style classes) when they are well-monitored by the professor to incite conversation and there exist incentives for students to engage with each other. Students and faculty observed that using discussion board posts during a lecture or as a prompt for in-class discussion elicited engagement and a sense of community. They reported that selecting and naming similar or contrasting voices from the discussion boards to those heard during synchronous activities highlighted, personalized, and broadened perspectives on a topic.

Recommendations for using discussion boards:

- Discussion boards should be part of the "time on-task" (see academic policy section below) for students and not additional time
- Discussions should address the learning goals.
- Set guidelines for participation, including the number of posts required per student for the semester, the number of interactions per student, and the depth and substance of each post.
- Explain why discussion boards are being used.
- Allow students to discuss with each other in their posts.
- Summarize key ideas or themes, highlight contrasting ideas, and provide information that hasn't been explored by student posts.
- Create opportunities to have students expand on their discussions in class.
- Specific role assignment: assign a student to be a "starter" to develop discussion prompts that integrate major issues in the week's assignments and assign another student to be a "wrapper," i.e., to go back over the week's posts and tie together the major themes in one summary. Rotate roles throughout the semester.

## **Labs**

The laboratory portions of the spring courses had highly variable degrees of success. We found that several kinds of laboratory experiences translated very well to a remote environment. Specifically, those that focused on scientific writing via analyzing literature or developing grant-like proposals and those that focused on experimental design were highly effective, with the caveat that those experiences often did not allow students to engage with experimental data. Several faculty members filmed themselves carrying out experiments or undertaking field trips using GoPro-type cameras, and these creative endeavors were well-received by the students. We note that these videos, like those for all asynchronous learning, were best if they were kept short and were interspersed with interactive elements that promoted student interaction. Students noted that they missed being part of a lab group, and those labs that incorporated small group meetings saw increased student engagement. We would encourage instructors to use group lab reports or similar assessment methods for fostering community within the laboratory environment. We also heard that some lab experiences were much less effective due to problems with technology (lab-specific software was incompatible with students' devices or content/software was blocked by home countries) and participation challenges (screen fatigue, chaotic home environments).

To address these concerns, we encourage faculty to have students test software and online resources early in the semester so that tech issues that hinder learning can be addressed quickly and/or alternate resources can be developed.

While we believe that classes that require a physical laboratory space on campus are best taught face to face, there are many avenues available to approximate that experience in a remote learning environment. The recommendations regarding videotaped, asynchronous activity presented in the lecture and discussion section above are relevant for many aspects of a remote learning laboratory course. Short video segments followed by learning activities and summative or formative assessment are more effective than lengthy videos followed by the lengthy assessments. Several lab-specific suggestions are listed below.

- Allow students to operate instrumentation and acquire data remotely
- Use shareable screens to work in groups
- Send equipment and materials to students so they can do experiments at home.
- Create interactive “choose your own adventure” lab video clips, which can showcase failure as part of the process.
- Provide explicit guidelines, check lists, and/or video tutorials so students know what is expected and how to complete the experiment
- Hold weekly live interactions via faculty-student or TA-student (small groups or one-on-one) meetings
- Use lab TAs as mentors to build community or troubleshoot problems.

We understand that every department has its own perspective on laboratory activities, but we also heard that many of them were seeking to do similar activities with their students and did not know that another group had already implemented it. A resource for avoiding the duplication of efforts can be found in a discussion forum titled “Remote Learning and Teaching” on Blackboard within the “Teaching Resources in Faculty” organization. We encourage all faculty teaching lab-based courses to post their ideas, tips/hints, and successes as well as what they find does not work, so that we all can learn from it.

## **Language and Performance-Based Classes**

### *Content*

For all courses, a focus on values-based learning goals, community building, and pertinence to the crises at hand (COVID-19, Black Lives Matter) offers a strong foundation for conceptualizing course content. Performance, visual art, and foreign language and literature courses have the opportunity to directly address how music, art, literature, theater, spoken word, film, and dance function to heal, maintain community, or disrupt societal systems in this era. For example, courses on film-acting, “Dance in the TikTok Era,” improvised musical communities (balcony singing), or fluxus-inspired mail art collaborations using the mail or other shipping service could take advantage of this moment to investigate our fields in relation to the pandemic, a digital world, and global community. For dedicated performance courses, including music ensembles, dance ensembles, music lessons, and theater productions, the following online supplements were cited as effective by many faculty:

1. adding skills-building components with synchronous and/or asynchronous check-ins, for example, weekly practicing goals, listening assignments, and other discipline-specific skills; and
2. adding a social/historical component to ensemble courses that would include reading and discussion (synchronous and/or asynchronous) of the social, historical, and/or cultural context surrounding the music/dance/work.

Recommendations in this report for lecture and discussion-based learning also apply here.

Person-to-person interaction is central to learning in language courses. While we do not recommend developing new content to replace learning a language (though more advanced courses can accommodate their content, such as examining pandemic literature in advanced language courses), we recommend taking advantage of online ways to expand language communities. For example, the online format makes regular collaboration with language courses at Bates and Colby a possibility, including working together to invite guest speakers and organizing other cocurricular events centered around a language. We also recommend student assistants in foreign language courses to help develop and maintain community outside the classroom.

### *Using Technology Effectively*

Instructors found several effective methods for using technology during the spring 2020 semester. Zoom's screen share feature allowed instructors to highlight and make changes on music notation software that students could observe in real time. Students can videotape their performances then share them via Zoom chat so that instructors can offer feedback while they watch together. Visual arts faculty can link a resource like Padlet to Blackboard for flexible image posting and commenting in order to critique work. Finally, it was effective to let students drive the technology. For example, when assigning group work, the instructor assigns what is to be done, but the students are very effective at best knowing how to engage with each other and to accomplish a given project, because modes of interaction on the internet change so quickly. This also allows students to use the methods (Google docs, TikTok, Zoom, WhatsApp, etc.) that are easiest and most familiar to them for group work.

Other helpful resources cited by faculty:

- Free online tutorials to supplement performance courses (for example, by well-known jazz educators and musicians)
- The Music Library (librarian: Karen Jung) for streaming resources of live performances
- [bowdoin.kanopy.com](http://bowdoin.kanopy.com) for film and documentaries
- [bowdoin.ensemble.com](http://bowdoin.ensemble.com) for making and sharing videos

### *Support Needs*

In addition to general staffing needs, including teaching assistants and teaching fellows, performance-based courses have specific staff needs. These courses will need to lean on liaisons in IT for more technical support for each class. For example, theater, dance, music, and visual arts faculty will need extensive support with video production in order to present their work. Commencement, for example, was a performance—the video production involved in creating that online event is what theater, dance, and music will each need to

present final semester performances. Visual arts faculty will need support with photographic documentation, website design, and digital fabrication in order to present an online version of end-of-semester Open House programming. Similar to labs, visual arts courses are materials-based, so movement of supplies, objects, and tools is a daily part of class work. Teaching with materials is made cumbersome, yet not impossible, by online learning. In some cases, online student technical assistance is fine, and in other cases, an on-campus student assistant is necessary.

Students and faculty will require licenses to the Adobe Suite for Visual Arts and to ProTools and SmartMusic for music ensembles and composition courses online. Some music faculty used Metronaut or other play-along apps, and we recommend that apps commonly used by faculty be integrated into Blackboard.

Within the **foreign languages**, Romance languages, German, and Latin are able to use many tools already available, like Google Docs as a whiteboard. However, for the non-Roman alphabet languages (Arabic, Chinese, Greek, Japanese, and Russian), extra support and technologies will be needed for online instruction. USB microphones for both faculty and students, combined with high-speed internet and the proper Zoom settings, greatly improves sound quality on Zoom. We have included two annotated lists of resources for teaching foreign languages and literatures [here](#) and [here](#), and in [Appendix D](#).

## INSTITUTIONAL AND CURRICULAR RECOMMENDATIONS

### **Academic Policies**

As stated above, some faculty attributed a lack of student engagement to the credit/no credit policy and, for this reason, we have returned to our normal grading policy. However, for the students living off campus, many of the same issues that prompted the credit/no credit policy will still apply. We urge reconsideration of the policies on academic probation and suspension in order to take into account the challenges of living and learning off campus in the context of a pandemic. We wish to reiterate that it is critical that faculty remain flexible about deadlines, provide frequent low-stakes assessments, and check in with students and with student deans, if necessary, to assure that students have every opportunity to meet our courses' learning goals. Weekly contact with every student, as well as more thorough, individual midsemester check-ins will support this effort.

Bowdoin revised its [guidelines](#) on exams and academic honesty to reflect the context of remote instruction this past spring. In addition to the suggestions presented there, we remind faculty of the importance of avoiding the conditions that lead to instances of academic dishonesty (i.e., infrequent high-stakes exams and assignments that can prompt in students a lack of confidence of success) and that frequent in-class conversations about why academic integrity matters in our fields promotes a positive culture.

It is also important to look at academic honesty not just in terms of catching instances of cheating but also in terms of preventing it in the first place. In his book *Cheating Lessons*, James Lang draws on behavioral science and pedagogical research to argue that cheating is largely driven by situational factors such as an emphasis on performance, as opposed to mastery of the material; infrequent high stakes assignments; external motivations, such as money or grades; and low expectations of success. Online tools are particularly useful for setting up small-stakes/frequent assessments and, with the relative ease of altering problems



and auto-grading, students are afforded more opportunities for practice and quick feedback. Moreover, requiring that students complete an academic honesty module early in the semester is another technique that works particularly well online. The 2018 report from the Working Group on Fostering Academic Honesty and Adjudicating Academic Dishonesty at Bowdoin recommended that all instructors speak several times per semester about expectations for academic honesty within their course and that frequent reinforcement of community standards promotes a positive academic integrity culture.

In order to facilitate informed decision-making when students enroll for courses, we recommend that instructors identify the following features of their courses before registration: 1) scheduling flexibility for multiple time zones; and 2) information on course-specific software or equipment requirements and how these are to be provided. We recommend that the registrar add these attributes to the course offering worksheet for Fall 2020.

Our student surveys noted that engagement with their professors was one of the most positive aspects of the spring semester. Because advising is a vital component of our educational experience, we recommend that advisors set up a regular schedule (through Teams, Zoom, or Outlook) for checking in with their advisees, so that timely communication is easier and more frequent, which we believe will help prevent student disengagement.

### **Scheduling**

Our guiding principles in shaping a remote academic schedule are based in providing **equitable access** to classes for all students, serving the overall student population as thoroughly and thoughtfully as possible, and thinking sensitively about faculty scheduling preferences and constraints. Together, these principles will necessarily require some flexibility from faculty, as well as students.

A Bowdoin course credit is equivalent to approximately twelve hours of work each week for fifteen weeks. In the context of in-class instruction, it is expected that three “contact hours” are spent together in a shared physical space, with a minimum of nine additional hours a week spent in lab, discussion group, film viewings, or preparatory work. In the context of online instruction, contact hours as “seat time” in a shared physical space is, of course, impossible. In this context, “contact time” includes synchronous course time as well as students’ “time on task”—that is, the time you estimate that students will be engaged with learning course material and completing assignments, bearing in mind the variability of students’ pace and schedule.

According to best practices, online courses should provide **a mixture of asynchronous and synchronous components**; the ratio of that mixture will likely vary depending on the nature and size of the class. We developed two guiding questions that may be helpful as faculty consider the structure of their courses.

**Asynchronous time:** This can take many forms, such as listening and responding to a prerecorded lecture, completing an assessment, or posting to a discussion board. Interspersing short recordings with learning activities or low-stakes assessments has been shown to increase student learning.

**Synchronous time:** This is defined by real-time interactions in a “virtual space” (usually videoconference) between instructor and students. We strongly recommend that instructors plan for approximately one hour

of synchronous meeting per week for *each student*. Synchronous time can be divided across the week as best suits the nature of the course and, depending on the class size, instructors may want to consider smaller group meetings in addition to, or instead of, a whole-class synchronous session. Most best-practice references suggest that synchronous meetings be limited to forty-five to sixty minutes (although shorter and longer meetings may sometimes be appropriate).<sup>6</sup>

Course scheduling should take into account that many students, when not physically on campus, contend with various time or environmental pressures that are very different from a normal semester's burdens. Obviously, time zones far from Bowdoin's are difficult, but some students also need to work full-time jobs when at home, provide family member care, or navigate household timing around computer and internet access, to name only a few issues.

To accommodate for these circumstances and pressures and give equitable access to all our students, we recommend a scheduling solution that offers a single course across different times for different days of the week.<sup>7</sup> For example, one course might have reserved, synchronous-meeting "time lanes" of, say, Monday 10:00–11:30 a.m., Tuesday 4:00–5:30 p.m., Thursday 1:00–2:30 p.m., and faculty would be asked to schedule their synchronous-time meetings within at least two if not all three of those time blocks.<sup>8</sup> The "time lanes" would give faculty up to four and a half hours per class per week, but instructors would choose how much of that time to use in synchronous meetings.

We understand that the pedagogy in certain disciplines will require different numbers of meeting times per week (specifically, languages); if a four-and-a-half-hour time lane divided into three one-and-a-half-hour parts is not sufficient, perhaps two lanes could be used.

The same considerations that apply to synchronous course meetings also apply to office hours. We encourage faculty to have regularly scheduled offices at different times during the workday and week. Student survey data noted that office hours were used more frequently when students could plan on attending in advance, and students particularly appreciated faculty members who sent invitations to office hours via Zoom or Teams. **Consistency** benefits student learning.

**Flexibility** is key. We learned from the past semester that students who ran into "rigidity" on the part of the instructor within a course had the hardest time engaging, and many of those students dropped the course.

### **Accessibility and Equity**

One of the challenges we'll inevitably encounter when conducting remote learning is that of broad accessibility and how to ensure equity in the learning process. Unless Bowdoin students are on campus together with equal access to the same resources, circumstances, and environment, the playing field is dramatically uneven.

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6 Note that if instructors find it useful to meet for up to 90 minutes, practices around student engagement should be considered; some of those practices include breaks, time for individual work or reflection, and/or small group or paired discussions or learning activities.

7 We also see the benefit of having a few "traditional" time blocks which meet at the same time of day, but we propose that these be limited to FYWSs and a few upper-class seminars.

8 Before registration, the instructor would indicate which 2 or 3 blocks of a given time lane that they would use, and then after the class is registered, each would organize with their students how/when to meet within those times.

Because of that, there are common, recurring challenges facing students participating in remote learning:

- Access to consistent internet
- Access to reliable technology—both hardware and software
- Access to a safe, productive work environment
- Access to tools necessary for learning generally—school supplies, printing, etc.
- Location with regard to time zones, possible censorship rules, etc.
- Accessibility barriers for students with disabilities and/or health challenges

We want to highlight that these conditions are independent of socioeconomic status and can change during the course of a semester.

### Universal Design

After consultation with the dean of student affairs, the associate dean of students for inclusion and diversity, the registrar, and the Student Accessibility Office, we recommend the following course design principles that mitigate and anticipate all of these challenges:

<b>Course Design Attributes</b>	<b>Application Examples:</b>
Create digitally accessible course materials	<ul style="list-style-type: none"> <li>• Provide captions for video content</li> <li>• Use accessibility checkers for PDFs, docs, and slides</li> <li>• Avoid using photographs of documents for the purpose of uploading or emailing</li> <li>• Use alt-text descriptions for images</li> <li>• Use contextual hyperlinks in documents and communications</li> </ul>
Flexible deadlines	<ul style="list-style-type: none"> <li>• Offer homework/activities that don't require extra online programming or external materials (ex: DIY art projects, cumulative independent research)</li> <li>• Provide longer time windows to download, complete, and submit assignments</li> </ul>
Small file sizes for materials	<ul style="list-style-type: none"> <li>• Break content into short segments that can be watched or downloaded individually</li> <li>• Offer content across multiple formats where possible (ex: slides used in video also available as downloadable PDF)</li> </ul>
Option for alternative assignments to meet learning goals	<ul style="list-style-type: none"> <li>• Let students apply learned concepts in a format that befits their living conditions</li> <li>• Have students keep a reflection journal detailing their learning process throughout the semester</li> <li>• Provide students the opportunity to submit a creative project instead of a paper or a paper in place of a live presentation</li> </ul>
Multiple options for synchronous meeting times	<ul style="list-style-type: none"> <li>• Mornings work well for students in Asia, midday for students on the West Coast of the US, evenings for students who need to work to support family</li> <li>• Having options allows students to adjust for changing home environments, instability, and family needs</li> </ul>

As a reminder, students studying from home are members of a household as well as an academic community. It may be necessary to provide information for families, translated into that family's preferred language if possible, that lay out the expectations and best practices for their student's online learning, keeping in mind that a student's hotspot might be used to provide internet for an entire home. Also, for some families, the idea of work is physical and outside the home, not something that happens on a computer or mobile device. This creates complicated situations for justifying significant time spent online.

### **Connectivity**

If students are having difficulty with stable internet connections in their home, we encourage them to contact IT support (207-725-3030) immediately. For short term, emergency situations they can find stable and fast connections through the [eduroam global Wi-Fi network](#) among colleges and universities, which allow the student to log into a campus's WiFi network using Bowdoin login credentials. Often, campuses that are closed to the public will still have signals strong enough to park and connect from a car, and a majority of Bowdoin student's homes are within a few miles of participating campuses. Many internet providers have made their Wi-Fi networks open to the general public. As an example, [Xfinity](#) has a map that makes it easier to find a location. Additionally, many businesses provide free Wi-Fi that may reach outside their buildings, including Starbucks, Panera Bread, McDonald's, Dunkin Donuts, Buffalo Wild Wings, Apple, Marriott Hotels, Whole Foods, Staples, Office Depot, Target, Best Buy, and Barnes & Noble. We understand that these are imperfect solutions to poor connectivity, but they do provide short-term flexibility. If a student anticipates long-term internet connectivity problems they should contact their Dean.

### **International Students**

A category of students that merits special consideration is international students. From navigating time zones, travel restrictions, and immigration regulations, this has been a particularly challenging semester for them. Current U.S. Citizenship and Immigration Services (USCIS) guidelines state that international students on F-1 visas in the United States cannot enroll in more than one online course if they wish to be considered full-time students. US schools are still awaiting further guidance as to whether this rule still stands moving forward. With the bulk of fall coursework to be delivered online, we urge on-going monitoring of this situation, regular communication with these students regarding updates from Bowdoin and USCIS, and priority readmission for students who lose their visas and for students who cannot access online course content due to censorship in their home countries. Moreover, we recommend that students be granted VPN privileges to counter any potential regional censorship guidelines or limitations regarding access to local educational resources. Should USCIS change their guidelines for the fall 2020 semester to accommodate remote learning, international students might be given consideration for on-campus.

### **Contacts**

Finally, we recognize that the way Covid-19 continues to impact communities is still somewhat unpredictable. Regardless of what happens next semester, we ask that direct channels of communication with Bowdoin employees, both by email and by a phone number that can be answered outside of a Bowdoin office, be made clear and available for students should they encounter challenges both before and during the semester. This would not be limited to the "Dean on call" system, but would include those faculty and staff tasked with academic and financial accessibility needs specifically, both in the United States and abroad. We recommend that all faculty and staff have call-forwarding enabled such that student calls to unattended office

phones will be transferred to home or cell phones. As we have seen this past spring, we are all susceptible to unpredictable changes and unforeseen circumstances, and as such, we must ensure that official communication is made clear, accessible, and constantly available for students.

### **Specific Contacts**

- Lesley Levy, Director of Student Accessibility with questions about accommodations and accessibility, either pre-disclosed or emergent: [llevy@bowdoin.edu](mailto:llevy@bowdoin.edu).
- The student's Dean with questions about support and possible funding to cover material and health needs.
- Academic Technology & Consulting contact or departmental liaison with questions about software and hardware faculty are using in delivering their course.
- IT Service Desk (207-725-3030 or [servicedesk@bowdoin.edu](mailto:servicedesk@bowdoin.edu)) with questions about WiFi, connectivity, hardware problems. Including student technology and connectivity.

### **Learning Management System**

In order to provide a consistent online experience across classes that reduces the cognitive load on our students, we recommend that all courses be loaded into Blackboard, which can accommodate the embedding of communications and materials from other platforms (e.g. Zoom into Blackboard). About 80% of Bowdoin faculty currently use some aspect of Blackboard in their courses. It is a priority that we train faculty new to Blackboard and upskill current users on the additional features of Blackboard, e.g. uploading assignments, embedding media, and providing students with feedback on their assignments.

### **Curation of Resources**

While everyone was appreciative of the tremendous effort faculty, staff, and students made for the emergency pivot, faculty and students alike commented on the challenges of distributed, multi-platform resources for remote teaching and learning.

We recommend a single site for faculty resources (and another for students), and multiple access points that direct faculty to this webpage, such as the home pages for Bowdoin, Academic Affairs, the Baldwin Center for Teaching and Learning, Academic Technology & Consulting, Information Technology, and the Blackboard site "Teaching Resources for Faculty." We do not have a recommendation as to where such a resource should be hosted, but it should be available for editing by representatives from the different groups that are maintaining support (Academic Affairs, BCLT, AT&C, IT).

Ideally, the site would be a clearing house for the following information:

- institutional framing and expectations
- guiding principles of remote teaching and learning
- assessment guidance and how to promote academic integrity
- linking cohorts of teachers to prevent reinvention of the wheel
- tools and instruction for streamlining grading and feedback workflows
- notifications about webinars, workshops, and other training opportunities
- ideas for community-building
- curated list of online tools and resources, with links to services for which Bowdoin has a subscription

Primarily, the site should function as a portal, offering information, examples, and links to support remote synchronous and asynchronous activities:

- suggestions for connecting an activity to learning goals
- suggestions for evaluating which digital tool to use for a given activity
- links to "how to use" instructions for those tools
- links to resources for making the activity and materials accessible through universal design
- a method for asking questions and follow-up
- references to relevant pedagogical research or examples
- links or tags to explore related resources

Similarly, we recommend a single site for student resources, with similar visibility as the faculty page. Some of the outlined resources could overlap with the faculty site (i.e. links point to the same "how to use" instructions for a digital tool):

- clarity about expectations from the College (statement of the Fall plan, grading policy, online etiquette, Academic Honor Code, updates to policies)
- best practices for learning online
- how to navigate Blackboard courses
- how to address technology equity challenges (access, hardware, software, etc.)
- wellness guidance
- online resource for asking questions and receiving answers and follow-up
- contact information for student support including deans, librarians, Baldwin Center, IT, CXD, the Student Accessibility Office and others

### **Faculty and Staff Support**

We have enormous confidence in the creativity and dedication of our faculty, staff and students, but we are concerned about the scale of this undertaking, especially given the many burdens and apprehensions we all will continue to experience in this pandemic.

It is essential that the Bowdoin administration and community acknowledge that many on campus have familial and other responsibilities that may fundamentally affect their teaching, including lack of access to dependable and reputable childcare during the summer and academic year, elder care, and more. We request that the administration offer a commitment to easing these kinds of unseen labor, for instance, by providing child care.<sup>9</sup> This will facilitate more effective engagement for many members of our community. In addition, we are mindful that faculty continue to perform service as chairs, as committee members, and as mentors to junior and visiting colleagues; that they are actively engaged in service to their fields (mentoring younger colleagues, doing external tenure and promotion reviews, organizing conferences, doing collaborative writing and projects, etc.), and have research commitments (editorial boards, promised articles, talks, etc.) to fulfill. We recommend that the College consider limiting the amount of "service" asked of faculty, so that they can focus more intently on the instructional program.

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<sup>9</sup> We note that other institutions are using services such as [care.com](https://www.care.com), [helpr-app.com](https://www.helpr-app.com), or Bright Horizons to support employees' child care needs.

## Scope

The plan for the fall requires all instruction to be remote, including that for the first year and transfer students in residence, with the exception of first-year writing seminars. To design and build between 300-400 fully online courses with the streamlined platforms and integrated tools that reduce cognitive load, and that entail

a strategic use of shorter and effective recorded lectures, frequent lower-stakes formative and summative assessments, and multi-media opportunities for engagement, community and accountability—all within a fairly limited turn-around time of less than 2 months—led us to consider whether Bowdoin's strengths and resources needed to be augmented by an experienced team of external consultants. In a survey designed and administered by the CTL Group at the end of May, 53% (of 182 faculty respondents) stated they needed a moderate amount of support, and 25% needed a lot or a great deal of support to re-design or develop their fall online courses. Moreover, high numbers of faculty prefer one-on-one support (103) or continuous availability of expert support (131) in addition to group training. This level of support is beyond what can be provided by colleagues currently on campus with the expertise necessary to facilitate moving courses into an online environment.

One assessment of the expert IT labor that would be needed is this: it takes about 16 hours of initial faculty training and working with staff to design and implement the initial modules of an online course, that is, to get the course ready for the first few weeks of the semester. If we need to move 300+ courses at 16 hours per course, that would require 4,800 people-hours to move them online. If each staff person in Academic Technology spends 30 hours per week on this (which is a stretch) for 6 weeks, we would need more than 50 people. The number of current Bowdoin staff with the training and expertise necessary is 5. Recognizing that overextended staff and stressful conditions would likely produce a chaotic and problematic move to online learning, the group decided that hiring an outside firm to help us with this transition was in the best interest of our faculty staff and students.

Bowdoin chose a vendor—Everspring—that is sensitive to the ethos of the Bowdoin education experience. Like we do, they believe that pedagogy should drive technology, that course design starts with learning goals and moves backward to be sure that the assignments and assessments are aligned with these goals, that course content and structure reflects the values of diversity and inclusion, that learning be active and student-centered, and that universal design principles are embedded in course materials and expectations.

## Implementation

Going forward, an implementation team composed of leaders of the BCLT, ATC, Communications, the library, a project manager from IT, and administrative support from Academic Affairs will work with Everspring to provide the training program for the summer and facilitate course delivery in the fall semester. The Bowdoin-based team, the name of which is yet to be determined, is urged to follow the recommendations contained in this document, to seek counsel from members of the CTL Group, to preserve the nascent cross-unit collaborations that have arisen this past semester, and to maintain the distinctiveness of a student-centered and community-engaged Bowdoin education.

Everspring will facilitate the design of course “shells” for Blackboard that incorporate the best practices for and streamline our transitions to online learning. These course “shells” are enhanced versions of the familiar Blackboard sites that are generated each semester for our courses that will facilitate the addition of content to

a course site. In addition, Everspring will aid in the delivery of faculty trainings, webinars, and consultations—some of which will address the use and mastery of various tools (such as OneNote, Ensemble, FlipGrid, Perusall, Padlet, etc.)-- that help faculty more effectively achieve their learning goals. Importantly, they will support our in-house learning design colleagues so that all of us are working effectively as we move our courses online without being overburdened.

### **Part Time Employee and Talent Share**

While recognizing that the financial situation is uncertain, the job of moving our courses online will, in many cases, fall on colleagues who have less than full-time appointments. We recommend that the College explore options for compensating the work that those individuals will carry out this summer. We have also reached out to Human Resources, specifically in regard to their [TalentShare Program](#), with a list of requested skills and tasks so that staff may be identified who can also assist, or be trained to assist, in the delivery of online courses.

### **Learning and Teaching Assistants**

We recognize that the level of comfort with many of the tools needed to teach online is highly variable, that we all will be challenged by many aspects of this new reality, and for many of us this coming semester will be similar to our first year of teaching. We also know that the time needed to implement an excellent online course is, in many cases, greater than what a face-to-face learning environment requires. For this reason, we believe Bowdoin students should play a more active role in remote instruction. As Jennifer Sparrow, Associate VP of Teaching and Learning with Technology at Penn State, observed in a meeting with members of the CTL Group, students have been creating communities online for some time now. We need to draw on their expertise and experience for doing this in our remote coursework. Calling on students to take responsibility for their education and to facilitate that of their peers promotes agency, initiative, and strong learning outcomes in courses. In our focus groups, we found that classes that had students take distinct leadership roles in facilitating discussions, form “smaller learning communities,” or work on group research projects and presentation not only freed up faculty time, they transformed remote instruction from managing a stopgap emergency situation to an acceleration of student initiative, skill-building, and resilience.

We recommend that, in addition to these measures, Bowdoin train and hire (or possibly give course credit to) students who serve as learning or teaching assistants for remote courses. These students would help with designing course modules, scheduling and running discussion groups, grading, and trouble-shooting tech challenges. In the May CTL Group faculty survey, there was a broad support for deploying student TAs in all these ways. We envision that students could perform this work either for pay (which would help alleviate the loss of work-study jobs on campus) or for academic credit—given that they will be trained in pedagogy. For information on existing models of student Teaching or Learning Assistants visit the sites at the following institutions of higher education: [CU Boulder](#), [U Southern Maine](#), [Dartmouth](#), and [Boston University](#).

### **Equipment**

Whereas our recommendations in this area are largely offered to faculty development and support, we do wish to point to the need to upgrade some technology if we are to maintain the quality and equity of our curriculum. Teaching languages (especially those that do not utilize the Roman alphabet) and completing computational problems in Chemistry, Math, and Economics in online courses would be improved dramatically if instructors and students had access to tablet and stylus devices (e.g. Apple iPad and Pencil,



Microsoft Surface, or similar technologies). Courses that include live audio performances (especially music and languages) suffer from latency issues as well as poor sound quality; we recommend that the College consider purchasing for faculty teaching and students enrolled in courses that need them, relatively affordable audio enhancements including USB microphones and headsets. We also ask the College to consider funding subscriptions to online annotation programs and to continue student access to widely used software (e.g. Stata and SPSS). Whereas the College possesses some remote desktop control software, we ask the College to assess whether current capability is sufficient for improved remote instruction of lab courses. The production of high-quality, asynchronous learning materials may require upgraded audio and video equipment, as well as expanded existing technologies, such as lightboards/learning glass for lectures, and quality cameras or similar technology for capturing lab experiments, field site visits, and performance courses. We ask that the College assess its store of loaner equipment to assure that it has the technology available to support the faculty as it moves its courses online.

## CLOSING REMARKS

We acknowledge that this document outlines significant work to be done over the course of the summer and next semester, but our research has shown that Bowdoin faculty were largely successful in their remote teaching efforts even under emergency circumstances and the training for and implementation of excellent online teaching and learning is not dramatically different from what we do in our normal teaching. There is now a framework in place to support more intentional course design, with more resources in development. We remind our colleagues not to work in isolation. While our content is course- and discipline-specific, we share teaching methods across disciplines and departments. Upcoming workshops and conversations are opportunities to reconnect with community members and share ideas. We are confident that our colleagues will find creative and equitable solutions to many problems we have not addressed and encourage faculty, departments, and programs to share their ideas with the dean for academic affairs as new contingencies arise.

## Appendix A: CTL Group Members

- **Rick Broene**, professor of chemistry and chair
- **Katie Byrnes**, director of the Baldwin Center for Learning and Teaching
- **Tess Chakkalakal**, Peter M. Small Associate Professor of Africana Studies and English
- **Dallas Denery**, professor of history
- **Manolo Díaz-Ríos**, professor of neuroscience and biology
- **Crystal Hall**, associate professor of digital humanities, digital and computational studies
- **Juli Haugen**, digital content and accessibility specialist, communications and public affairs
- **Stephen Houser**, senior director of academic technology and consulting
- **Lesley Levy**, director of student accessibility
- **Joshua Lin '22**
- **Uriel Lopez-Serrano '20**
- **Tracy McMullen**, associate professor of music
- **Caroline Poole '22**
- **Elizabeth Pritchard**, associate professor of religion and associate dean for academic affairs
- **Arielle Saiber**, professor of Romance languages and literatures
- **Carrie Scanga**, associate professor of art
- **Gavin Shilling, '21**
- **Jennifer Snow**, educational research consultant, academic technology and consulting
- **Dan Stone**, associate professor of economics
- **Karen Topp**, senior lecturer in physics and faculty liaison for advising
- **Peyton Tran, '23**
- **Erin Valentino**, associate librarian for research, instruction, and outreach
- **Mary Lou Zeeman**, R. Wells Johnson Professor of Mathematics

## Appendix B: Suggested Calendar for Faculty Preparation

### *Suggested Timing for Course Design Work*

**Outcomes: By following the steps and dates outlined in the calendar you will be able to do the following at a reasonable pace:**

- Implement best practices in designing a resilient course that meets the possibility of students being remote, faculty being remote, students on campus, or faculty on campus.
- Build your overall course structure in Blackboard guided by suggested best practices.
- Choose and adopt course materials that students are expected to purchase or rent
- Create accessible and inclusive online materials
- Prepare your first 2 weeks/units/modules of your course(s) materials and learning activities
- Create and upload ancillary materials (syllabus, course schedule, expectations, rubrics, project descriptions)

**Big Picture: Preparation through mid-July, intensive work at the end of July, slower pace through August**

When	What
<p><b>By July 17</b></p> <p>Results:</p> <ul style="list-style-type: none"> <li>• List of overall course components</li> <li>• Awareness of options for online learning</li> <li>• Course materials adoptions</li> </ul>	<ul style="list-style-type: none"> <li>• Watch or attend the Bowdoin-designed in-house overview webinar</li> <li>• Start to work through the materials for faculty on Blackboard</li> <li>• Consider who might be in your class(es). What is their background in this material? What experiences have they had in the past year, in particular, that might influence how they approach your course? What identities/experiences/understandings/misunderstandings might they be bringing with them?</li> <li>• Draft course learning goals</li> <li>• Identify assessment strategies for each learning goal – How will you know that learning has happened?</li> <li>• Consider creating a rubric to identify what success looks like for one of those assessments</li> <li>• Explore the kinds of activities available in online learning settings</li> <li>• Evaluate what needs to happen during synchronous meetings (remote or in person) and what kind of preparation for those meetings should happen asynchronously</li> <li>• Sign up for Intentional Pedagogy Course Design Week 1, workshops, or 1-1 consults with a remote teaching and learning liaison</li> <li>• Request course materials adaptations for physical or online books that students purchase or rent</li> </ul>

When	What
<p><b>By July 24</b></p> <p>Results:</p> <ul style="list-style-type: none"> <li>• Blueprint of course structure for Blackboard</li> </ul>	<ul style="list-style-type: none"> <li>• Create a course blueprint of weeks/units/modules, learning goals, assessments, and activities that seem appropriate for students learning the material, practicing its application, and evaluating achievement of the goals</li> <li>• Take an inventory of the course materials and content you have, and those you need to create, to start filling in the blueprint <ul style="list-style-type: none"> <li>• Start with the first week/unit/module</li> </ul> </li> <li>• Contact your remote teaching and learning liaison for 1-1 consults</li> <li>• Continue working through modules for faculty on Blackboard OR Engage in Intentional Pedagogy Course Design Week 1 on Blackboard</li> <li>• Form a course design group with colleagues to share approaches (don't reinvent the wheel)</li> <li>• Add initial structures for weeks/units/modules to Blackboard</li> <li>• Set up a consultation with a research librarian to begin strategizing about how to integrate research projects into your course. Contact Karen Jung, <a href="mailto:kjung@bowdoin.edu">kjung@bowdoin.edu</a>, for more information.</li> <li>• Talk to a librarian and LAs/TAs about how to build in and curate their presence in the course.</li> </ul>
<p><b>By July 31</b></p> <p>Results:</p> <ul style="list-style-type: none"> <li>• Week 1 activities, assessments, and materials online</li> <li>• Basic course framework on Blackboard</li> </ul>	<ul style="list-style-type: none"> <li>• Attend Week 2 of Intentional Pedagogy Course Design on Blackboard</li> <li>• Work through the accessibility module for faculty on Blackboard</li> <li>• Gather existing materials for the first unit/module/chapter/week and</li> <li>• Create the content for activities for the first week/unit/module. Check them for accessibility &amp; copyright restrictions</li> <li>• Recruit a student to assist with accessibility</li> <li>• Scan the first week's readings from any required textbooks</li> <li>• Contact your remote teaching and learning liaison for 1-1 consults</li> <li>• Attend a workshop</li> <li>• Identify supporting student documentation you might need (i.e. how to use a digital tool)</li> <li>• Reflect on how you might grade or assess activities</li> <li>• Revise the blueprint</li> <li>• In Blackboard add &amp; copy any elements that you will use consistently throughout the course</li> <li>• Continue the inventory of materials you have and those you need to create to fill in the blueprint <ul style="list-style-type: none"> <li>• Focus on the second week/unit/module</li> </ul> </li> <li>• Submit Library reserve materials needed for the first 2 weeks of classes. Contact Amy Heggie, <a href="mailto:aheggie@bowdoin.edu">aheggie@bowdoin.edu</a>, for more information.</li> </ul>

When	What
<p><b>By August 14</b></p> <p>Results:</p> <ul style="list-style-type: none"> <li>• Week 2 activities, assessments, and materials online</li> </ul>	<ul style="list-style-type: none"> <li>• Gather existing materials for the second unit/module/week and check them for accessibility &amp; copyright restrictions <ul style="list-style-type: none"> <li>• Recruit a student to assist with accessibility</li> <li>• Scan the second week's readings from any required textbooks</li> <li>• Submit Interlibrary Loan requests for materials needed for course reserves or research 2-3 weeks in advance. Submit Bowdoin Digital Delivery requests 2-4 days ahead of when you need them. Contact Guy Saldanha, <a href="mailto:gsaldanh@bowdoin.edu">gsaldanh@bowdoin.edu</a>, for more information</li> <li>• Submit requests for streaming film reserves by August 1. For information, please contact Carmen Greenlee, <a href="mailto:cgreenle@bowdoin.edu">cgreenle@bowdoin.edu</a>. (Any request received after August 1 will be completed within 14 days.)</li> </ul> </li> <li>• Create the content for activities for the second week/unit/module <ul style="list-style-type: none"> <li>• Contact your remote teaching and learning liaison for 1-1 consults</li> <li>• Attend a workshop</li> </ul> </li> <li>• Identify supporting student documentation you might need (i.e. how to use a digital tool)</li> <li>• Reflect on how you might grade or assess activities</li> <li>• Revise the blueprint</li> <li>• In Blackboard add &amp; copy any elements that you will use consistently throughout the course</li> <li>• Continue the inventory of materials you have and those you need to create to fill in the blueprint <ul style="list-style-type: none"> <li>• Focus on the next week/unit/module</li> </ul> </li> </ul>
<p><b>By August 21</b></p> <p>Results:</p> <ul style="list-style-type: none"> <li>• Plan for remaining work</li> <li>• Two modules ready to go</li> </ul>	<ul style="list-style-type: none"> <li>• Get feedback on a module from student or faculty volunteers</li> <li>• Identify what materials you have and those you need to create to start filling in the rest of the blueprint</li> <li>• Gather existing materials for the remaining unit/module/week and check them for accessibility &amp; copyright restrictions <ul style="list-style-type: none"> <li>• Contact your online learning liaison</li> <li>• Recruit a student to assist with accessibility</li> </ul> </li> <li>• Create a plan and timeline for creating the remaining activities, preparing the remaining material, and posting the remaining content</li> </ul>

When	What
<p><b>By August 28</b></p> <p>Results:</p> <ul style="list-style-type: none"> <li>• Course structure built</li> <li>• Ready for first day</li> </ul>	<ul style="list-style-type: none"> <li>• Finalize &amp; post contents of first two modules <ul style="list-style-type: none"> <li>• Check for consistent organization</li> <li>• Post accessible media</li> <li>• Post first two weeks' scans from required course books</li> </ul> </li> <li>• Finalize &amp; post syllabus</li> <li>• Check that Library course-reserve materials are in place</li> <li>• Include a list of the required, recommended, optional, and choice textbooks for rental or purchase</li> <li>• Create welcome / start here page for class</li> <li>• Set Zoom, Calendly, and other office hour technology</li> <li>• Finish your "introducing me" video</li> <li>• Start implementing the plan for finishing the course build-out</li> <li>• Send a welcome email/message/survey to your students with instructions for first day</li> <li>• Let the students know that the first two weeks of required readings are posted on Blackboard, and to order textbooks if they have not already.</li> </ul>
<p><b>First Day of Class</b></p>	<ul style="list-style-type: none"> <li>• Offer an orientation to the course structure and plan</li> <li>• Establish norms for behavior and etiquette</li> </ul>

## Appendix C: Bowdoin College Course Design Checklist

### Step 1. Develop Course Learning Goals

Task	Description	Notes/Resources	✓
1.1 Describe the purpose of the course.	Why this course is important and where it fits in the curriculum.		
1.2 Students will be able to _____ at the end of the course.	List the skills and knowledge/ understanding students will be able to demonstrate at the conclusion of the course.		

### Step 2. Develop Course Assessments/Assignments

Task	Description	Notes/Resources	✓
2.1 Design transparent final assessment(s).	Major projects, papers, performances, and/or tests in which students demonstrate their capacity in relation to the learning goals.		
	Unpack the cognitive tasks required for students to successfully complete that assignment.		
2.2 Design transparent formative assessments	Assignments throughout the course that both inform your understanding of student progress and how to adapt the instruction and create opportunities for feedback to students on their learning. (Quizzes, papers, lab reports, presentations)		
	Students should practice and receive feedback on the cognitive tasks required for their final assessment(s) through these assignments.		

## Step 2 (continued)

Task	Description	Notes/Resources	✓
2.3 Design rubrics	Rubrics, or grading checklists or criteria explicitly show students how to meet expectations/ standards for each assignment.		

## Step 3: Develop Course Schedule/Modules

Task	Description	Notes/Resources	✓
3.1 Create the course schedule/modules	Delineate what students do on a weekly basis both on their own and in synchronous class sessions.		
	Decide which tools/technology to use.		
3.2 Link the learning goals for each module to the appropriate materials.	What will students know and be able to do/practice in each module?		
3.3. Create content for the first module.	Include: 1. a brief introduction answering the questions, what? And so what? 2. description of what to read, watch, do, (maybe with guiding questions) 3. assignments		
3.4 Review copyright restrictions on materials	Some courses make use of media and/or technology developed by a third party who holds copyright on the use of these materials. It is the responsibility of the course developers to ensure that use of these materials follows Bowdoin's policy.		
3.5 Review the accessibility of multimedia content.	Captioning and image descriptions?		



### Step 3 (continued)

Task	Description	Notes/Resources	✓
3.6 Review the value of course materials.	Evaluate materials to ensure positive value and return on investment for learning: Review available course materials to ensure that the cost of materials is a good value to students and doesn't cause any barriers in the educational experience (Instructors might consider open education resources as an alternative to expensive textbooks).		
3.7 Test the first module from a student perspective.			
Repeat steps 3.2-3.7 for other modules.			

### Step 4: Develop a student-centered, navigationally-friendly syllabus and Blackboard course site

Task	Notes/Resources	✓
4.1 Does the course design follow a consistent format?		
4.2 Are the learning goals explicit, measurable and connected to the assessments?		
4.3 Is each module introduced and linked to a learning goal(s)?		
4.4 Are assignments clearly defined with rubrics or grading criteria?		
4.5 How accessible is the Blackboard course site and the course materials?		
4.6 How do students communicate with you and with each other?		

### Optional Step 5: Evaluate the course design and solicit student feedback

## **Appendix D:** Sources consulted, recommended, and available as e-books through Bowdoin Library or at the provided links.

Bruff, Derek. *Intentional Tech: Principles to Guide the Use of Educational Technology in College Teaching*. Morgantown, WV. West Virginia University Press, 2019.

Coomb, Norman. *Making Online Teaching Accessible: Inclusive Course Design for Students with Disabilities*. San Francisco, CA. Jossey-Bass, 2010.

Darby, Flower and Lang, James. *Small Teaching Online: Applying Learning Science in Online Classes*. San Francisco, CA. Jossey-Bass, 2019.

Equity Education, <https://eqeducation.org/>

Harvard University, "Best Practices for Remote Instruction", <https://teachremotely.harvard.edu/best-practices>

Inman, Joanna and Myers, Simuelle, "Now Streaming: Strategies That Improve Video Lectures" IDEA Paper #68 March 2018, <https://files.eric.ed.gov/fulltext/ED588350.pdf>

Lang, James. *Cheating Lessons*. Cambridge: Harvard University Press, 2013.

Miller, Michelle D. *Minds Online: Teaching Effectively with Technology*. Cambridge, MA. Harvard University Press, 2014.

Nilson, Linda B. and Goodson, Ludwika A. *Online Teaching at Its Best: Merging Instructional Design with Teaching and Learning Research*. San Francisco, CA. Jossey-Bass, 2018.

Online Learning Consortium (OLC), Association of Public and Land-Grant Universities (APLU), Every Learner Everywhere Network, *Delivering High-Quality Instruction Online in Response to COVID-19 Faculty Playbook*, 2020. <https://onlinelearningconsortium.org/tools/delivering-high-quality-instruction-in-response-to-covid-19-faculty-playbook/>

Pacansky-Brock, Michelle. *Best Practices with Emerging Technologies*. 2nd Edition. New York. Routledge, 2017.

Quality Matters, *Bridge to Quality: A QM Online Course Design Guide*. Basic and Expanded Editions, 2020. <https://www.qualitymatters.org/higher-ed-bridge-guide-basic>.

Stachowiak, Bonni. *The Productive Online and Offline Professor: A Practical Guide*. Sterling, VA. Stylus, 2020.

Tobin, Thomas J. and Behling, Kirsten T. *Reach Everyone, Teach Everyone: Universal Design for Learning in Higher Education*. Morgantown, WV. West Virginia University Press, 2018.

Weller, Martin. *25 Years of Ed Tech*. Edmonton, AB. Athabasca University Press, 2020.