Objective

The ongoing COVID-19 pandemic has imposed significant challenges on our campus community—not the least of which are barriers to providing engaging and meaningful learning experiences for our undergraduate and graduate students. In an effort to better understand these barriers, and to identify practical ways in which faculty can strive to better meet the diverse needs of their students during the pandemic, the BFA Student Affairs Committee (SAC) facilitated a series of focus groups with CU undergraduate and graduate students, and administered a questionnaire to attendees of these focus groups and the broader CU student population. The aim of this report is two-fold. The first is to highlight insights about areas for improvement that students consistently noted in the focus groups. Drawing on these insights, the second is to draft a short-list of strategies during the pandemic that may help faculty make reasonable adjustments to their curricula, course delivery, formative assignments, and metrics of evaluation—in order to enhance the academic experience of our students in the Spring 2020 semester.

Methodology: Focus Groups and Questionnaire

The Student Affairs Committee organized eleven focus groups over three days (11/18/2020-11/20/2020), each facilitated by one faculty member from SAC or the BFA Executive Committee. Each session consisted in 4-7 students (58 students in total), lasted roughly 60 minutes, and asked students to critically reflect on the following series of open-ended questions:

1. How would you describe your overall academic experience this semester?
2. What has been the greatest challenge to your success this Fall 2020 semester with remote-learning and/or hybrid learning?
3. What are some positive aspects of remote-learning and/or hybrid classes that have enhanced your learning?
4. What changes to remote-learning and/or hybrid course instruction would you like to see faculty make for the Spring 2021 semester?
5. What suggestions do you have for students that might improve their academic experience and success during the pandemic?

Seven of the focus groups involved both undergraduate and graduate students, and four of the sessions consisted only in undergraduate students. As the call for participation in these focus groups was widely shared with and advertised by Strategic Relations, Center for Teaching and Learning, Graduate School, Graduate and Professional Student Government, University of Colorado Student Government, and BFA representatives (and their respective home departments), this group of 58 CU students is a random and relatively representative sample: 34 majors were represented, across six colleges, schools, and programs, including the Colleges of Arts and Sciences, Engineering and Applied Sciences, and Media, Communication and Information; the Schools of Business and Education; and the Program in Exploratory Studies (with the Office of the Vice Provost for Undergraduate Education).

These focus groups were semi-structured—prioritizing the questions above—since consistency in the questions asked allowed the Committee to identify commonalities in students’ experiences. Yet, faculty facilitators were encouraged to allow the discussions to evolve organically (that is, to allow participants to guide the discussion), and were encouraged to exercise discretion in asking clarifying and follow-up questions of students. Faculty facilitators took detailed notes of each session, which were carefully reviewed in combination with the recommendations that students offered in an online questionnaire they were also asked to complete.
This questionnaire consisted in several close-ended questions that asked students to critically reflect on their academic experience during the Fall 2020 semester, and two open-ended questions that asked students to offer suggestions to enhance the academic experience at CU during the pandemic:

**Limited demographic questions:**
1. If you are an undergraduate student, what is your year? (1: Freshman, 2: Sophomore, 3: Junior, 4: Senior)
2. If you are a graduate student, please select your degree program? (1: Master’s program or equivalent, 2: Ph.D. program or equivalent)
3. What is your field of study?

**Close-ended questions** (1: Strongly agree, 2: Agree, 3: Neither agree nor disagree, 4: Disagree 5: Strongly disagree):
4. I have experienced pandemic-related disruptions this semester, which have interfered with my coursework.
5. My faculty members have been flexible with me this semester to accommodate the pandemic-related disruptions I have experienced.
6. CU has made adequate adjustments this semester to meet the needs of students during the pandemic.
7. The classes I have taken remotely require more work on my part than the traditional in-person classes I have taken in the past.
8. I believe that I am learning as much in my hybrid and remote-learning classes this semester as I have in past semesters with traditional in-person classes.
9. I find that the in-person class sessions with the hybrid delivery model create a better learning experience than the class sessions that I attend remotely.
10. My academic experience this semester has generally been positive and I am pleased with my decision to take courses at CU during the pandemic.
11. I am planning on returning to CU for the Spring 2021 semester.
12. My decision whether or not to return to CU for the Spring 2021 semester is influenced by the academic experience I have had this semester.
13. My instructors have made a commendable effort during the pandemic to provide a meaningful learning experience for me this semester.

**Open-ended questions:**
14. What are 1-2 specific suggestions you would offer faculty to improve the academic experience of their students during the pandemic?
15. Are there any other thoughts you would like to share with the Student Affairs Committee?

Once the focus groups were completed, the Committee decided to make the questionnaire available to all students at CU-Boulder and shared the call with the same offices noted above, which again helped to advertise the survey. The questionnaire was developed and administered through Qualtrics, requiring an active CU IdentiKey to complete the survey, preventing students from submitting more than one survey. While this questionnaire was open for an additional week, it inadvertently fell on Thanksgiving week, which likely reduced the number of responses. (Though, CU had moved to fully-remote instruction the week before (on 11/16/2020), so students would have had ample opportunity to complete the survey).

All told, the online questionnaire involved 150 self-selected respondents (including focus group participants), from 45 graduate students and 105 undergraduate students. These 150 respondents represented 57 majors, across seven colleges, schools, and programs—including A&S, Engineering, MCI, Business, Education, Exploratory Studies, and Environmental Design.

Beyond providing helpful descriptive statistics that put into context the insights gleaned from the focus groups, the additional suggestions for enhancing the academic experience at CU-Boulder during the pandemic that were provided by respondents (question #14-15) were carefully reviewed by the Student Affairs Committee. While more sophisticated theme or content analysis was not performed to bear out shared student experiences and recommendations, the reader should note that the Committee does not intend this report to stand as a definitive, generalizable characterization of the student experience. Rather, the aim of this report is to provide faculty candid and constructive insight from our students about areas for improvement in their courses to motivate faculty to invest in their course design to promote student success.
Key Trends and Lessons—With Practical Suggestions

As Figures 1 and 2 below detail, an overwhelming majority of students (88.8%) reported having experienced pandemic-related hardships this semester that have interfered with their coursework. Nevertheless, most students reported that their faculty have worked to accommodate these hardships (Figure 3) and to create a meaningful learning experience despite the challenges that this pandemic has created (Figure 4). Further, many students—37.6% of undergraduates and 44.7% of graduate students—agreed or strongly agreed that academic experience during the Fall 2020 semester was positive overall and were pleased with their decision to take classes at CU during the pandemic (Figures 5-7). These figures were largely parallel across colleges, schools, and programs (Figures 8-10); though, it is notable that 42.9% of undergraduate respondents from the College of Engineering described their experience this semester as positive overall. Finally, students overwhelmingly reported they are planning to return to CU for the Spring 2021 semester (Figures 11-14): 86.4% of freshman and sophomore respondents expressed that they agree or strongly agree that they intend to return, 88.9% of upperclassmen agree or strongly agree, as do 87.1% of graduate students.

Many of these statistics are reassuring and would suggest that students perceive that faculty are striving to be empathetic and to make adjustments to meet the needs of their students, and that students patiently recognize that this is a less-than-ideal situation.

It should be noted, however, that 12.7% of undergraduate respondents and 7.7% of graduate respondents disagreed or strongly disagreed that they intend to return for the Spring 2021 semester. While these figures are not unusual relative to CU’s overall retention and graduation rates for undergraduate and graduate students in recent years, it should also be underscored that 44.1% of undergraduates and 29% of graduate students reported disagreeing or strongly disagreeing that their academic experience this Fall 2020 semester was positive overall. The percentage was higher among students in the College of Arts and Sciences (at 43.5%) and lower in both the School of Business (at 40%) and the College of Engineering (at 28.6%). But in any event, these figures also highlight clear challenges faced by our students as the pandemic wears on.

Notably, a majority of respondents—viz., 66% of undergraduates and 59.4% of graduate students—disagreed or strongly disagreed that they were learning as much in their current hybrid and remote-learning classes as they had in past semesters with traditional in-person classes (Figure 15). There was little variation in answers to this question across colleges, schools, and programs, with 63.8% of students in A&S, 62.5% of students in the School of Business, and 61.6% of students in the College of Engineering disagreeing or strongly disagreeing that they are learning as much this semester (Figures 16-20). Coupled to this, 66.7% of all respondents—undergraduate and graduate—reported agreeing or strongly agreeing that the workloads in their remote-learning classes this semester are greater than in past semesters with similar in-person classes (Figure 21). Among upperclassmen, who have a greater range of classes to which to compare their experience this semester, 76.2% of respondents agreed or strongly agreed that their coursework is more demanding than in previous terms; 52.6% of graduate student respondents also concurred that their current courses are requiring more work from them than usual (Figures 22-24).

Students raised several concerns in the focus groups and open-ended survey questions that the campus community should consider as we prepare for the spring semester, to strive to meaningfully address some of the overarching problem-areas described below. Following each description of the broad concerns that students voiced is a series of practical suggestions that either our student respondents or the faculty members on the Student Affairs Committee proposed. The Committee recognizes that these recommendations may not be feasible or even suitable for all courses, depending on the size, level, content, etc. Nevertheless, we hope that the insights gained from learning about these students experiences and recommendations will present new and useful information for faculty to consider as they prepare for the spring semester.
**Problem-Area 1: Organization.** Many students reported that
- Canvas is often under-utilized in their classes (especially the calendar function in Canvas),
- course syllabi can lack detail on reading schedules and assignment deadlines,
- reminders and consistent communication from faculty are often lacking,
- impromptu changes to the schedule of readings or deadlines are often not reflected in syllabi, and
- this lack of organization clouds learning goals and how individual class sessions relate to the broader course objectives.

**Recommendations for faculty to consider:**
1. Create syllabi with detailed reading schedules, and examination and assignment deadlines.
2. Move course content onto Canvas and utilize the calendar function for all assignments.
3. Create announcements in Canvas to remind students about approaching deadlines.
4. Limit changes to schedules and assignment deadlines, and ensure those changes are reflected in the syllabus and are communicated to students with adequate advance notice.
5. Include links to your Zoom classroom space and syllabus at top of each Canvas homepage.
6. Walk students through your Canvas course so they understand how the class is organized and reorient them to Canvas as major deadlines approach.
7. State and maintain clear expectations—both for your students and for your TAs.

**Problem-Area 2: Workloads and Workspaces.** Many students reported that
- faculty are assigning more work than in usual semesters,
- workloads seem to overlook the significant personal obligations students bear (e.g., many students are working part-time or full-time jobs, or caring for family members),
- workday boundaries are being blurred—with both faculty communications and deadlines,
- substantive feedback from faculty is limited or non-existent,
- there is little physical separation between home and work—given small living and study spaces,
- the significant amount of sitting is physically demanding and emotionally taxing, and
- long durations of staring at computer screens are physically taxing (leading to vision problems, headaches, etc.).

**Recommendations for faculty to consider:**
1. Consider whether course adaptations are leading to increased workloads for your students.
2. Adjust for the possibility that some work takes longer to complete in this format than in traditional in-person settings.
3. Build flexibility into deadlines for assignments, provide adequate time for completion, and offer a longer range of hours to complete exams. (And consider that students enrolled in remote-learning classes may be in different time zones.)
4. Avoid scheduling deadlines for assignments and exams outside of reasonable work hours.
5. Provide consistent feedback to students throughout the semester—even if brief—to give them a better sense of their standing and progress.
6. Diversify office hours to better accommodate the diverse availability of students.
7. Incentivize attending office hours to motivate students to proactively connect with faculty.
8. Be mindful of the limited and often shared physical space that students have available: e.g., provide brief breaks during class when possible, institute a flexible policy with class participation and the use of cameras during face-to-face webinars.

**Problem-Area 3: Course Delivery and Student Engagement.** Many students reported that
- synchronous webinar lectures (via Zoom, Google Meets, Microsoft Teams, etc.) move too quickly—especially in larger classes,
- internet connection problems interrupt class sessions and undermine the learning experience,
the absence of live captions with synchronous webinar class sessions can make following lectures and class discussions difficult,
learning is more difficult when faculty do not provide recordings of webinars or copies of lecture slides or lecture notes,
asynchronous, pre-recorded (audio and video) lectures are too long and unengaging,
synchronous webinar class sessions lack opportunities for student involvement and interaction,
larger remote-learning classes offer no face-to-face experience—as students’ cameras remain off,
large remote classes that lack adequate numbers of TAs make breakout rooms unfeasible, and
faculty and TAs often seem unapproachable, and some faculty and TA’s neglect to respond to emails and hold limited and inconvenient office hours.

Recommendations for faculty to consider:
1. Record synchronous webinars to allow students to access it in the case of illness, technology failures, or other disruptions.
2. Organize asynchronous, pre-recorded (audio or video) lectures into a few, shorter lessons—segments that are generally no longer than 10 minutes.
3. Post copies of lecture slides or lecture notes on Canvas for students to be able to reference.
4. Explore utilizing captions to make synchronous class sessions more accessible: platforms like Zoom, Google Meets, Microsoft Teams, Webex, and Adobe Connect, all offer closed-captioning options and third-party providers offer live captioning services (contact captioning@colorado.edu for information on free or low-cost tools).
5. Increase incentives for greater student participation. For example,
   a. offer brief, but consistent opportunities for students to interact with each other in small groups (in the absence of TAs, faculty can briefly join small discussion groups—with their video and audio turned off—to unobtrusively create a standard of students staying on task).
   b. build incentives into the grading criteria for students to leave their cameras on for synchronous webinar class sessions (without penalizing those whose internet connections, workspaces, or other circumstances prevent them from doing so).
   c. build incentives into the grading criteria for students to ask questions or engage in discussion.
   d. utilize the chat function in your webinar platform to give students an alternative to verbally engaging in class discussions.
   e. use polls during lecture to slow down the delivery of material, engage students, and encourage attendance.
6. Diversify office hours to better accommodate students’ availability, and incentivize attending office hours to motivate students to proactively connect with faculty.
7. Augment regular office hours by staying connected for 5-10 minutes after synchronous webinar class sessions, to offer students brief opportunities to connect.
8. Occasionally check-in with students to gauge their experience in the class, and to identify reasonable, real-time changes you could make to the course.
9. Provide more training for and consistent communication with TAs, who were occasionally described as being unsympathetic or inflexible.

Problem-Area 4: Inconsistent Course Delivery. Many students reported that
switching between in-person and remote learning is challenging—students desire predictability,
the combination of synchronous (face-to-face) and asynchronous instruction creates a disjointed learning experience and often results in increased workloads—students desire consistency,
lecture slides or notes, and pre-recorded (audio or video) lectures, when expected, were occasionally missing, and
faculty sometimes made impromptu changes to course syllabi, assignments, or class sessions (such as changing the meeting time or space for a class session) in ways that presented hardships for students or that did not come with enough notice.

**Recommendations for faculty to consider:**
1. Maintain a consistent schedule of synchronous and asynchronous class sessions.
2. List this consistent schedule of synchronous and asynchronous class sessions in the syllabus.
3. Prepare a detailed syllabus and minimize changes as much as possible: include a link to your webinar classroom space, keep meeting times and places consistent, clearly articulate reading schedule, etc.

**Problem-Area 5: Isolation and Stress.** Many students reported that
- larger remote classes offer no face-to-face experience (cameras remain off)—creating a highly impersonal learning environment,
- smaller remote classes allow for face-to-face interactions, but opportunities are still sparse,
- there are significant barriers to getting to know classmates or faculty,
- they lack a sense of community or belonging in the class, and
- the lack of organization, increased workload, lack of communication and substantive feedback, constraints of physical workspaces, and lack of available resources, all spur and amplify mental health challenges.

**Recommendations for faculty to consider:**
1. Provide an explicit statement in syllabi on student mental health services and resources at CU, and remind students of these services throughout the term.
2. Afford a few minutes after remote classes to answer questions and connect with students.
3. Expressly empathize with your students: e.g., ask them how they feel, how they are doing, and acknowledge that we are going through a difficult time. (Some examples that surfaced included creating brief polls in your webinar platform, encouraging students to add an adjective to their name in Zoom (or your equivalent platform) that conveys their mood, or creating small discussion groups during the semester based on students’ interests.)
4. Create greater opportunities for small-group discussions or activities to build a sense of community.
5. Strongly encourage (or require) 1-2 office hour visits per semester (either with you or your TAs) to motivate greater one-on-one connection.

**Select Quotes from Focus Groups**

“I really would like to point out that although there have been challenges this semester with online school, having more busy work, and overall student mental health, there have also been amazing positives and strengths. The majority of my professors have been very understanding and acknowledging of external stressors and factors outside their individual class. I additionally have found professors to be more open to meeting outside of office hours if needed.”

“Everyone is doing their best and trying. Be honest with your students. We know you’re struggling and doing your best, and if we could acknowledge that and meet each other halfway I think that brings about a more honest and for me a more willing environment to work and engage in.”

“Although the intentions of not having a traditional spring break make sense, it is necessary for normal students to function academically. Academic breaks are important for many reasons including mental health and sustained achievement. It is therefore detrimental to offer the alternative of single days off where professors will undoubtedly schedule homework, assignments, and exams due on or after these days. I understand that having a traditional spring break is unlikely, however, I do want to make it clear that it will be the cause of student’s academic, mental, and health decline.”
Figure 1. I have experienced pandemic-related disruptions this semester, which have interfered with my coursework.

Figure 2. Variation in Average Response to Pandemic-Related Disruptions Across Colleges, Schools, and Programs

Figure 3. My faculty members have been flexible with me this semester to accommodate the pandemic-related disruptions I have experienced.
Figure 4. My instructors have made a commendable effort during the pandemic to provide a meaningful learning experience for me this semester.

Figure 5. My academic experience this semester has generally been positive, and I am pleased with my decision to take courses at CU during the pandemic.

Figure 6. Variation Among Undergraduate Students

Figure 7. Variation Among Graduate Students
**Figure 8. Variation Among Students in Arts & Sciences**

![Graph showing variation among students in Arts & Sciences.]

<table>
<thead>
<tr>
<th>Strongly Agree</th>
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<th>Disagree</th>
<th>Strongly Disagree</th>
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Minimum: 1, Maximum: 5, Mean: 3.23, Std. Dev.: 1.2, Count: 70

**Figure 9. Variation Among Students in Business**

![Graph showing variation among students in Business.]

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Minimum: 1, Maximum: 5, Mean: 3.1, Std. Dev.: 1.37, Count: 20

**Figure 10. Variation Among Students in Engineering**

![Graph showing variation among students in Engineering.]

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Minimum: 2, Maximum: 5, Mean: 2.90, Std. Dev.: 0.94, Count: 21

**Figure 11. I am planning on returning to CU for the Spring 2021 semester.**

![Graph showing self-planning to return to CU.]

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Minimum: 1, Maximum: 5, Mean: 1.75, Std. Dev.: 0.95, Count: 127
Figure 15. I believe that I am learning as much in my hybrid and remote-learning classes this semester as I have in past semesters with traditional in-person classes.
Figure 16. Variation Among Students in Arts & Sciences

<table>
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<tr>
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<th>Disagree</th>
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<td>14.5</td>
<td>32.5</td>
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Minimum | Maximum | Mean | Std. Dev. | Count |
--------|---------|------|-----------|-------|
1        | 5       | 3.70 | 1.20      | 83    |

Figure 17. Variation Among Students in Business

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Minimum | Maximum | Mean | Std. Dev. | Count |
--------|---------|------|-----------|-------|
1        | 5       | 3.67 | 1.20      | 64    |

Figure 18. Variation Among Students in Engineering

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Minimum | Maximum | Mean | Std. Dev. | Count |
--------|---------|------|-----------|-------|
1        | 5       | 3.65 | 1.16      | 68    |

Figure 19. Variation Among Undergraduates Who Disagree or Strongly Disagree that Their Experience has been Positive

<table>
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<th>Disagree</th>
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<td>14.1</td>
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Minimum | Maximum | Mean | Std. Dev. | Count |
--------|---------|------|-----------|-------|
1        | 5       | 3.94 | 1.06      | 85    |

Figure 20. Variation Among Graduate Students Who Disagree or Strongly Disagree that Their Experience has been Positive

<table>
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<td>13.6</td>
<td>11.4</td>
<td>31.8</td>
<td>40.9</td>
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Minimum | Maximum | Mean | Std. Dev. | Count |
--------|---------|------|-----------|-------|
1        | 5       | 4.02 | 1.12      | 43    |
Figure 21. The classes I have taken remotely require more work on my part than the similar in-person classes I have taken in the past.

Figure 22. Variation Among Freshmen and Sophomores

Figure 23. Variation Among Juniors and Seniors

Figure 24. Variation Among Graduate Students