To help the university assess how the West Lafayette campus can further modify its operations during the COVID-19 pandemic, The Graduate School conducted a variety of information sessions and coffee hours throughout the semester. Near the conclusion of the fall 2020 semester, The Graduate School conducted a survey of current graduate students to gain a better understanding of the challenges to academic progress they faced during the pandemic. That data is summarized below.

Of the 10,014 graduate students registered for Fall 2020, 895 students (11%) weighed in about their COVID-19 experience in The Graduate School’s COVID-19 End of the Semester Survey. Most of the respondents identified as doctoral students (66%) or master’s students (30%).

As to whether or not they were comfortable coming to campus for in-person activities, 32% were comfortable coming to campus for research, 23% were comfortable coming for class, 24% said they were not comfortable coming to campus.

At least 63% of respondents indicated that access to spaces, courses, technology, and faculty were working well, working satisfactorily or were neutral. However, 60% of respondents said that the ability to collect of face-to-face data caused moderate or severe challenge, and 47% of respondents said access to field experience was a moderate or severe challenge.

At least 42% of respondents indicated that factors associated with travel, family responsibilities, physical and mental health, in-person interactions, housing, food, financial challenges, transportation, on-campus spaces, and home office were not a hindrance or were a mild hindrance. The three factors in this category with the highest combined score of moderate or severe hindrance were mental health issues (58% of respondents), limited networking opportunities (57% of respondents) and limited in-person interaction with fellow students (57% of respondents).

A majority of respondents (82%) said they had funding, with most of those having either a research assistantship (36%) or a teaching assistantship (23%).

A majority of respondents (76%) indicated that they were not teaching a course in Fall 2020, while 15% said they were teaching a course with in-person components, and 9% said they were teaching a completely remote course. The top five courses respondents said they were teaching were chemistry (19), computer science (16), biological sciences (14), mathematics (10) and education (9).

Of those students who are teaching a course, at least 62% said that factors associated with teaching a course, such as teaching technology; interactions with students; PPE; classroom facilities; spaces, especially for social distancing; discussing course format with supervisor; and library resources; were working well, were working satisfactorily, or were neutral.

When asked what additional accommodations/suggestions would make teaching less challenging, 13% of respondents wrote in suggestions. There were 40 comments asking for all courses to be put online or for students to be given the choice of whether or not they had to attend in-person, 22 comments about
the increased workload associated with teaching to both in-person and online students, and 21 comments identifying challenges with the teaching technology.

When asked if there were changes that could be made to further facilitate academic progress, assuming the pandemic presents the same challenges in Spring 2021, 46% of survey respondents wrote in comments. There were 84 requests to put all courses online or for students to be given the choice of whether or not they had to attend in-person; 75 comments related to campus life, such as public transportation, housing, access to the dining hall, parking options, delivery of library books, and access to campus study spaces; 40 students called for reduced expectations and more flexibility; 33 students voiced concerns about increased workloads for TAs and inaccessible professors; 32 students asked for more mental health support; 32 students called for better enforcement of Protect Purdue; 30 students asked for more financial support to offset COVID-19 induced expenses; 30 students wanted better communication, 57 students had no calls for anything different during the pandemic; and 22 students wanted to move everything back to in-person.

Hundreds of positive comments from 44% of survey respondents were logged in response to the question about pandemic-related changes that were working well enough to make them permanent post-COVID-19. There was a chorus of support (120 comments) for continuing virtual advisor, lab group and committee meetings and virtual office hours. Nearly 100 students supported online exams, prelims, defense, and delivery of assignments. Recorded lectures were appreciated by 46 students. In terms of virtual versus in-person courses, 104 asked for more classes to be online, 37 students said that in-person is better, while 27 students liked hybrid courses.

RECOMMENDATIONS

• Generate and distribute a list of teaching and non-teaching-related technology support webpages or helplines. It is clear that many graduate students that taught in the fall were not connected to the resources provided by the university to support transition to online teaching, such as: https://www.purdue.edu/innovativelearning/teaching-remotely. Students are also not sure of what technology or resources are available to them through the department teaching program. Ensure that communications to faculty about teaching are also sent to graduate teaching assistants.

• Offer ample virtual networking opportunities for graduate students, both socially among peers as well as for professional networking. The Graduate School will continue to do this through the organizations that we work with. We recommend that research groups, departments, and colleges provide opportunities as well.

• Foster regular department-level open communication with students via emails, virtual town halls, virtual office hours, etc. Invite students to share concerns, ask questions. Reach out more often, especially with those working remotely.

• Consider offering communication or virtual networking opportunities for specific populations in your department, such as BIPOC or international students.

• Prioritize mental health support for graduate students. Encourage students to seek out resources that are available on campus, such as CAPS at: https://www.purdue.edu/caps, and through the community. Early intervention is key.
• Ensure that faculty are offering ample virtual office hours and that students are encouraged to use them. Communication between major professors and students is critical to the academic progress of graduate students and it is even more important when faculty and/or students are working remotely. Twenty-seven percent of students found access to their major professor severely or moderately challenging. Reaching out on a regular basis is encouraged. Over 41% students found working from home moderately or severely convenient. Anything advisors can do to help them return to campus safely would be encouraged.

• Continue offering flexibility with attendance requirements and deadlines. Students with families are particularly challenged when daycare or schools switch to online learning or students that have roommates test positive and thus are required to quarantine for a period of time. Flexibility and alternative plans are necessary, since many interruptions during the COVID-19 pandemic are sudden.

• Offer more support to students who are experiencing a substantially increased workload due to graduate teaching assistants who have to accommodate helping students in an in-person class, as well as students who are unable to attend in person during isolation or quarantine.

• Honor the intention of the Reading Days or breaks when scheduled. Graduate students need time to catch up, too.

• Provide additional safe study/work spaces for graduate students who need a break from their living quarters. A list of current study spaces is available at: https://webapps.lib.purdue.edu/covid-19/pages/where-to-study-on-campus. Additionally, the Graduate Student Center is available for graduate students to study: https://www.purdue.edu/gradschool/student/pgsc.

• Post-COVID-19, consider if virtual meetings, events, or exams could continue as viable option; consider offering recorded lectures/professional development, and continue shipment of library books. Students have valued the online access to library resources (https://webapps.lib.purdue.edu/covid-19/pages/purdue-libraries-changes-to-operations) and would value the continuation of these resources post-COVID-19. The Graduate School is working on new policy to make virtual exams, defenses, and committee meetings a permanent change and developing guidelines to assure safe and fair procedures.
Graduate Student COVID-19 End of the Semester Survey
Multiple-choice Questions (Q1 – Q8)

Q1. What type of graduate program are you pursuing? Please select all that apply.

- Master's
- Doctoral
- Graduate certificate
- Professional
- Other (teacher license and non-degree)
- Online
Q2. The global COVID-19 pandemic has affected all of us in many ways. We, at the WL Campus, have been committed to providing everyone the support needed to be safe, healthy, and successful. To safeguard the health of the community, we have modified many of our operations based on public health guidance. Plans continue to evolve as new information becomes available. With health and safety in mind, are you comfortable coming to campus for in-person activities? Please select all that apply.

- Yes, for class
- Yes, for research
- Yes, for work
- No, I am not comfortable
- I am not in the West Lafayette area
Q3. The primary purpose of the next set of questions is to assess how the campus can further modify its operations to facilitate your academic progress while balancing the need for health and safety of the community. Please reflect on your experience in the Fall 2020 semester as you respond to your questions. We will use your responses as we plan for the Spring 2021 semester. Please rate how the following factors are affecting your academic progress, keeping safety and health in mind.
Q4. The primary purpose of the next set of questions is to assess how we can further modify our operations to facilitate your academic progress while balancing the need for health and safety of the community. Please reflect on your experience in the Fall 2020 semester as you respond to your questions. We will use your responses as we plan for the Spring 2021 semester. Please rate how the following factors are hindering your academic progress, keeping safety and health in mind.
Q5. How are you commuting to campus? Please select all that apply.
Q6. Do you have a graduate assistantship in Fall 2020 semester? Please select all that apply.

- Research assistantship
- Teaching assistantship
- Graduate/Professional assistantship
- Fellowship from Purdue University
- Fellowship from external sources
- No funding
Q7. Are you teaching a course in Fall 2020?

- Yes, a course with in-person components
- Yes, a completely remote course
- No
Q8. To what extent are the following factors a challenge in teaching the course?
Graduate Student COVID-19 End of the Semester Survey
Open-ended Questions (Q9 – Q12)

Q9. In which department are you teaching?

- 426 responses
- N/A or not teaching – 164 responses
- Listed a department – 262 responses; the departments for which there were five or more responses are as follows:

<table>
<thead>
<tr>
<th>Departments</th>
<th>No.</th>
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<tbody>
<tr>
<td>Chemistry</td>
<td>19</td>
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<tr>
<td>Computer Science</td>
<td>16</td>
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<tr>
<td>Biological Sciences</td>
<td>14</td>
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<tr>
<td>Mathematics</td>
<td>10</td>
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<td>Education</td>
<td>9</td>
</tr>
<tr>
<td>Physics and Astronomy</td>
<td>8</td>
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<tr>
<td>Electrical and Computer Engineering</td>
<td>8</td>
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<tr>
<td>Statistics</td>
<td>7</td>
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<tr>
<td>History</td>
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<tr>
<td>Civil Engineering</td>
<td>6</td>
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<tr>
<td>Mechanical Engineering</td>
<td>6</td>
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<tr>
<td>School of languages and cultures</td>
<td>6</td>
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<tr>
<td>English</td>
<td>5</td>
</tr>
<tr>
<td>Computer and Information Technology</td>
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<tr>
<td>Communication</td>
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<td>Management</td>
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</tbody>
</table>
Q10. Are there additional accommodations/suggestions you would request to make teaching less challenging for you?

251 comments; some respondents commented on multiple subjects

No, not teaching – 132 respondents

Move courses fully online, or give students the choice of online, hybrid, or in-person – 39 comments

- Put all courses online as long as the infection rate is not 0. Life and health is always the first.
- No in-person classes. Spacing in classrooms between students are not the CDC recommended 6-ft.

Address new teaching challenges – 22 comments

- It is really hard to teach an in-person lab during these times. At one point, half my class was on quarantine and half were in-person, which increased my work load significantly since the students who were quarantined could not all attend a synchronous make-up session or my office hours. Therefore, I had to make individual appointments with all of the quarantined students and reteach the content over and over to each one.

Improve technology, access, & support – 21 comments

- Access to better microphones, headphones
- I don't get any tech support and I pay for all my equipment....
- I bought a digital writing pad to use, so it would be easier to work out problems with students during online office hours... I would make these available to instructors....
- Better access to Brightspace support
- Premium Zoom for office hours
- Use different software for online lectures. Kaltura is a failure...
- Teams has been exceptionally difficult to use...

Increase funding, financial support for COVID-19 related needs, home office – 12 comments

- Make allowances to TAs so that they can buy needed equipments for online teaching
- Provide a stipend for internet

Improve department, school, and university guidelines and communication – 11 comments

- Ensure that ALL TAs understand their roles/responsibilities prior to beginning their position - we have had issues with TAs simply not doing anything and all of the course load being put upon another TA.
- ...Covid-related notices are very late. One time I received the notice 3 days after my student told me about the quarantine already.
- More clear guidelines and expectations of how to engage students that can’t or won’t attend in person components for hybrid classes. More clear expectations from Purdue of their threshold for shifting things online again.

Better enforcement of Protect Purdue, more COVID-19 testing, PPE – 7 comments
• ...Not enough testing available to students nor are students taking social distancing and mask wearing seriously on campus

Move back to all in-person courses – 6 comments

• I prefer face-to-face interactions with students.

Increase classroom/lab size. Provide better equipment, sanitation – 6 comments

• For my course, I had to take class and office hour both in-person. I wasn’t comfortable at all for the first few weeks. Though seats are somewhat 4-6ft apart, people do move nearby. Also hearing about my students getting quarantined every now and then was another mental stress. I think in-person lab can only be enforced if the lab room has large enough spaces.

Reduce expectations, add more readings days – 5 comments

• Provide breaks for students so they aren’t all constantly super stressed. I have to constantly offer students grace, which I’m happy to do, but I feel awful trying to enforce deadlines on students who confess that they are breaking down under covid and financial troubles and feeling like the university doesn’t care.

Offer more flexible parking – 3 comments

• Parking: either let graduate students access the daily passes that faculty can since much of my work from home schedule makes my current pass unnecessary. Alternatively, let us automatically qualify to apply for garage passes without extra documentation...
Q11. Assuming global pandemic presents the same challenges in Spring 2021, are there changes campus can make to further facilitate your academic progress?

409 comments; some respondents commented on multiple subjects

**Move more or all courses, labs fully online, or provide choices – 84 comments**

- Although I would love to have access to campus resources, I don’t think it’s the best idea at this time and would rather things stay restricted. At the moment, my concern is that campus will not close if it needs to. Right now cases are spiking and my stress levels are rising again as a result. It’s hard to focus when I don’t know the exact situation on campus and that decisions are being made in the interest of public health.

- If a TA does not feel comfortable teaching in an in-person setting, they should - without question or resistance - be permitted to switch to ZOOM/WebEx teaching until they feel safe returning to the classroom to teach. If a TA is immunocompromised and/or living with individuals that are vulnerable to COVID-19, the TA should be permitted to switch to in-person teaching when they feel comfortable doing so and they feel they are not putting their dependents, co-residents, and/or loved ones at risk.

**Campus life: Improve public transportation options, housing, access to dining hall, parking, delivery of library books, study and office spaces – 75 Comments**

- Being able to have more places that function as office spaces or open spaces to study in would be fantastic. At the moment, my main challenge is being able to change work spaces to help with my motivation and productivity. At the moment, like for many of us, my apartment functions as many different things all at once and it has become difficult to maintain a good schedule.

- I would like a place for graduate students to eat in their buildings that has spacing or dividers or something. It is hard to work a whole day when you are scared to eat lunch.

**No. Nothing more can be done. Don’t know. – 57 comments**

- Honestly, I think that Purdue has done an excellent job of adapting to these challenging times. Students are still able to find places on campus to study, dining options are still good, transportation hasn’t changed (the bus system particularly) and professors have remained very flexible and understanding in these tough and unprecedented times. Technology has really been useful a well!

**Reduce expectations, more flexibility, and respect reading day – 40 Comments**

- More required reading days where courses can not be held would be very useful. Many course syllabi remained unchanged in terms of the number and length of required assignments despite the shortened semester. As a result, the removal of all breaks often made assignments unmanageable as new assignments were given more frequently due to the faster pace. Additionally, requiring classes to allow some extensions would help prevent time conflicts and unmanageable workloads, as some courses still did not allow extensions under any circumstances.

**Address new challenges in teaching brought by COVID-19, such as increased workloads for TAs, inaccessible professors – 33 Comments**
• reduce the load of teaching/grading. Due to dedensification, we need to double our lab hours while we still need to take care of the same amount of the students.
• Increase professor availability, perhaps through mandatory 2hr/week virtual office hours, even if they aren’t teaching. There are professors that are now impossible to get a hold of since they aren’t in their offices and have always been bad about answering emails.

Provide more mental health support or support of auxiliary services that would facilitate mental health – 32 Comments

• We need more mental health support and prelim exams should be altered or eliminated. The additional mental strain on students right now is unbearable in addition to the normal burdens of graduate school.
• We need to be given opportunities to interact with others outside of zoom. My mental health is severely struggling with the lack of any face to face contact that I would normally have if I was in the lab 8-5 every day
• …TELETherapy coverage outside of CAPS.

Better enforcement of Protect Purdue, COVID-19 testing, access to PPE, improved ventilation, better pandemic-related policies, access to vaccine when available - 32 Comments

• Institute adequate sanctions to different misconducts related to lack of observation of rules.

Increase funding, financial support for COVID-19 related needs; eliminate or refund activity fees– 30 Comments

• Do not make students pay the 300 dollars of fees for things like "student activities" and "wellness fees"
• Funds to outfit work from home space.

Improve department, school, and university guidelines, communication, and networking opportunities – 30 Comments

• Create department-wide networking opportunities through modern mediums (Slack/Discord/etc.) that encourage interaction between students and are supported by the department heads. The lack of peer interaction I have as a first semester graduate student is absolutely crippling... E-mail lists and online social events where very few students attend won't work...
• Professors need to have better communication with students and be held accountable for that. More options for tutoring/academic help services. I have no idea what my options are and staff are not supportive or do not want to aid with academic struggles. Getting a graduate advisor/contact who is open and friendly and wants to help students succeed. A senior graduate student mentor for first year graduate students (this was supposed to happen and it was never followed up on). I feel like I have no had adequate guidance or resources available to me. I feel like just a number to this school and not that anyone cares if I am passing my classes or physically/mentally well.

Move more or all courses, labs, and meetings back to in-person – 22 Comments
• Make it easier for grad students to do human subjects research with other students, face to face. If distancing and masks are possible, grad students should not be punished for needing to do human subjects research, if subjects are willing. This has set back my work a lot.
• Keeping graduate courses in-person for smaller class sizes to make sure students learn the material and have the ability to interact with the faculty member teaching the course.

**Better technology, access, & support – 17 Comments**

• Kaltura is an unreliable software, should find a better way for online lecture broadcasting.
• Provide insight on how to use brightspace in depth (how do I see my course grade?)

**Better support for international students – 8 Comments**

• I have felt that it could be nice to create another survey for international students who are living in the US. I am concerned about our mental health and what kind of strategies we are having for supporting the financial issues that the pandemic brought.
• Being an international student, I faced problems with time zones. It would be better if the faculties understand this basic caveat when giving group assignments/projects to online students. Networking with people in different time zones is a major challenge while doing an online semester, and this requires more time to complete a group project/assignment.

**Other – 24 Comments**

• Understand that not all “on-campus” students are actually on campus. I live 3 hours away and I am a TA for an online course. I wasn’t able to take the fully online option due to my funding package but I am essentially online only. Please enable students living very far from campus to have the vault mail in covid tests for the spring. I really don’t want to drive 6 hours just to be tested on campus. Also, there should be a mail in testing option for the ongoing surveillance testing for those of us who live far from campus. Enable all students to request ILL materials via mail. I don’t live close to campus and TA entirely online so it is silly for me to drive to campus for book pickup.
• Arrange flexible working time. E.g some people work in lab in the morning the others work in lab in the afternoon.
Q12. Are there some pandemic-related changes that are working well for us to consider making them permanent as we evolve to post COVID-19 times? For example, online exams and committee meetings.

393 comments; some respondents commented on multiple subjects

No. N/A. No changes should be kept. – 34 Comments

Virtual advisor, lab group, committee meetings; virtual office hours – 120 Comments

- The opportunity to hold committee meetings virtually makes it easier to schedule a day/time without the hassle of having to find a room to book. It’s also much more flexible in terms of not needing to be physically on campus to hold the meeting.
- Online department meetings and reviews are great! Prior to Covid I would arrive on campus at 7am and not leave till midnight due to meetings and required attendance. With the online meetings I am able to spend some time with loved ones and have the comfort of being safe in my own space and able to have a cup of coffee.

Online or take home exams, online prelims, defense, delivery of assignments – 98 Comments

- Having defenses online is actually really nice, because it allows people to attend who aren’t physically in the area. If privately streaming in-person defenses becomes a norm in the future, I think that would actually be really nice....
- Take home tests are amazing. :) Less pressure and even though they’re designed to be way more difficult than in-person ones I feel like I can put more effort into them and be creative with my answers.
- Submitting assignments online through Brightspace/Gradescope has worked really well.

Online courses, working from home – 104 Comments

- Make all the classes online. In my class of four people one got the virus.
- Allow remote work in general. I work just fine from home.
- More work-from-home and technology access make a big difference in the ability of persons with disabilities to be gainfully employed. Keep those options open and encourage departments to make decisions with accessibility in mind.

Recorded lectures – 46 Comments

- In the future, if we move to in-person classes, there must be a recording of lectures as well. This really helps to re-watch the lecture videos if you either miss a lecture or do not understand a particular point for example.
- I have really benefitted from having the lecture recordings available so I can rewatch them and better learn the material. I have trouble taking all the notes and listening to the theory at the same time. I wish this was always possible.

In-person is better (and sometimes necessary) for such things, such as teaching, clinic hours, exams, meetings – 37 Comments
• Online exams are NOT good. Too many students cheat, raising the averages, and then those of us that don't cheat end up doing worse than average. Too many professors turn them into all day long events, and then you end up spending eight hours on one exam instead of the usual two. I do not like online exams. Either everyone needs to use ProctorU or we need a better way to stop cheating.

• I really value face-to-face. I think we need to go back to that and not maintain online things beyond COVID-times.

• Please let us continue to get our clinical hours in any way possible.

• Talking with other phd students at Purdue, I believe several would like to have in person final Phd defenses. This is heartbreaking to have to do online, for those of us who have struggled for years to earn a phd. If masks & distancing can be ensured, more events such as presentations (like a defense) should be held in person...

Hybrid options for courses. – 27 Comments

• Hybrid classes have been very helpful in balancing school and life.

• The hyflex option seems like it would be very helpful to include in accommodations for students experiencing physical and mental health concerns. For example, offering Zoom-in attendance seems like a reasonable accommodation that can continue post-COVID-19. Similarly, it is easier for me to attend service/administrative/etc meetings now that many of them are virtual. I feel like I am able to take greater advantage of Purdue resources now that they are often online.

• Hyflex model seems to work well in my department. It offers students flexibility when they are ill, or in quarantine. Students in quarantine can still participate in synchronous lessons.

Online seminars, webinars, conferences, poster sessions, networking

• Online seminars have allowed for more diverse speakers to take part when normally travel would be difficult, which has been wonderful.

• Online networking with people across the country

• Many webinar are more convenient to attend now. I suggest that they should keep this format in the future.

Keep some Protect Purdue policies: sanitation of spaces, sanitation stations, social distancing, surveillance testing, mandatory flu shot – 24 Comments

• I think the disinfection policies and face mask requirements are working well. I have never seen a student trying to take their mask off in a building, and everyone always using the disinfectant wipes before sitting in the classroom. I think the stickers also help show us where it is safe to sit. The random testing is also very efficient and I haven't ever spent too long waiting in line there.

More flexibility in attendance requirements, schedules, due dates, more reading days – 15 Comments

• As this is my first semester at Purdue, I do not know if this is normal or due to covid, but I have really benefitted from flexible due dates and recorded class lectures. These things allow me to have more control over my schedule, and I've actually procrastinated less this semester because of it.
• Continuing to have no attendance requirements (except for lab courses) would also help keep sick individuals from spreading other illnesses.

• There absolutely needs to be more reading days. The fact that we’ve only had one reading day this whole semester is sickening to me. This is the worst semester I’ve ever had. We need a break...

Campus life: Outdoor seating, mental health support, delivery of library books, study and office spaces, more parking options – 11 Comments

• The outdoor study tents would be great to have in warmer months even post COVID. It’s a nice way to encourage spending more time outside.

• I LOVE that the library will ship books and materials to me! This has really helped with my research and I think it should be a permanent option. Many students working on their dissertations (myself included) live far from campus and this is a really great way to support Purdue research. I appreciate it so very much.

Access to technology & support – 10 Comments

• Extended Zoom and WebEx licenses for all graduate students.

• Continue expanding technology across campus. Improve recording equipment...

• More resources available online was useful. For example, some of the Microsoft groups on teaching instruction etc was useful.

Other – 18 Comments

• The acknowledgment that jobs outside of academia will likely be the path for many graduate students now. There needs to be a very clear effort from the university to help provide alumni connections for graduate students to get into alt-academic careers especially when we have been told to focus on academia. Workshops and networking events on this is sorely needed- and they need to be run by those in the field not in academia.

• I like how submission of various forms has become digital (like registration in research credits). It is much more convenient and saves paper. So I would prefer if that became permanent.