Word of encouragement and advice for online course instruction from fellow CALS instructors

Lori Abendroth, Assistant Teaching Professor, Agronomy

- Students have a high capacity to lead their own learning and take initiative when motivated by their goals and interest in the material.
- For some students, it seems to take about 2-3 weeks for them to adjust to online learning versus classroom-based.
- A minority of students need some additional guidance or reassurance prior to submitting an assignment that they are thinking correctly. I try and be very responsive via email when they send questions so I can quickly affirm their ideas or correct misunderstandings.
- I provide lengthy feedback to their discussion posts and quizzes/exams to explain mistakes. I have learned most will not reach out when they make mistakes (for various reasons).
- Each week, I read through the materials from past semester with fresh eyes and rewrite or add new components to make sure it is as clear as possible so the students are not dependent on my verbal explanation.
- I have Office Hours via Zoom, and the students can easily join and ask questions. Many students still correspond through email, though.
- I set a schedule of when each week’s reading, discussion post, and quiz are posted. This forces me to prioritize it above other things. The repeatability and structure also create a dependable environment for the students where they can be assured the content will be there when they are able to log-on.
- I have discussion groups established where the class is broken into groups of six. I find a real-world connection each week to the concepts learned and the students explore that further in their discussions. I do not provide direct feedback and it is fascinating to see their learning from one another.
  - “Although some concepts may be difficult to grasp, having them dissected in the group discussions helped significantly.” – student
  - “With the addition of these real-world scenarios, I’m retaining some of this information, and will actually have it in my head.” – student.
- Setting up automated grading in Canvas for tests has required additional time up front but something I am always grateful for when it comes time to grade.

Sandy Andrews, Assistant Teaching Professor, Food Science & Human Nutrition

What I am trying to do now is communicate more with my students. I do not overwhelm them with messages, but when I write them I try to be compassionate, knowing that each one of them might have personal struggles right now. I also try not to compose a long message and if I have instructions for them, I make a list, so it is easy for them to
follow what I am expecting. I try to be positive and reassuring that I am there to help them out and I respond to their messages as soon as I can.

My suggestion to my colleagues is to **keep it simple**. Create small sections in Canvas, don't go for huge amount of material in one spot. Be aware that some students might not have high speed internet or might have to access internet from outside their house (for example driving to ISU County Extension Offices). It is also easy for students to go through the material in small steps. Don't lower your standards, but lower the expectation of what students can do at once, that is why course material in small chunks is good.

I would also not use new technology. Use the technology you are familiar with. Remember that what you are familiar with might not be something I use, so students will have to figure out different technologies for different courses. That could become a source of frustration and confusion. The best way to avoid that is making your course and instructions for your students simple to follow and as clear as possible.

I have decided not to use Zoom or WebEx to teach because I have a large number of students and not all of them can be online at the same time. However, I told my students that I will be responding in real time to their emails or Canvas messages during the days and times our class used to meet face-to-face. This way, they know when they can get a quick response to their questions.

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**Don Beitz, Distinguished Professor, Animal Science**
- The staff in the Brenton Center are very helpful/cooperative in working with faculty in recording a class.
- Presenting a lecture to a camera in one of the Brenton Center rooms and then posting the recorded lecture on Canvas is a practical way to proceed.
- Staff in the Brenton Center are quite helpful with Canvas issues.

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**Madan Bhattacharyya, Professor, Agronomy**
- Add a "Reflection" assignment to each lesson, asking students what parts of the lesson are still unclear to them.
- Prepare answers for all questions and share with students prior to any review sessions, where I go through my answers in the "discussion format" with the students, who participate in the review session. They seem to like this approach.
- Other than that - we need to answer their concerns within 24 hours and may copy our responses to all students - many times the other students may have the same concern.

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**Nancy Boury, Assistant Professor, Plant Pathology and Microbiology**
We are all in this together – If you run into something you are struggling with, there is plenty of help. Between fellow faculty, CELT, and the Brenton Center, there are people to help. Don’t hesitate to ask.

**Recommendations:**

- Decide your learning outcomes for each week – what do you want your students to be able to do, what skills should they have, what understanding should they be gaining each week?
- Determine how you will assess these outcomes – how do you know the students have mastered the content and achieved the outcomes you intended for them?
- Build course activities around the learning outcomes and assessment, and clearly align these. This may be readings, lecture recordings, online resources, TED talks, exercises. Where possible, offer different methods for students to learn the material because re-enforcement is great. I typically write a study guide and have several short, formative assessments in each unit, approximately one per week.
- That being said – this does not have to be perfect, and **communication with your students is key**. Remember, not everyone will have reliable access to the internet, so giving students the entire week to complete work is preferable to daily or synchronous work.
- Communicate – clearly and frequently. Send updates the same day/time you’d be in class. This lets students know you care about them and their education. Let them know we are all in this together, and ask them for advice – what works for them? What struggles are they facing? Remember, some of our students are in health care, transport, working as grocery clerks, etc. Be flexible. They did not choose to take online classes any more than the faculty choose to transition their courses online.

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**Terri Boylston, Associate Professor, Food Science & Human Nutrition**

Student engagement and interaction is more important in an online course than it is face-to-face. Fortunately, we have the technology available to adapt the student engagement and interaction that takes place in a face-to-face course to an online course.

- Try to incorporate opportunities to think about the lecture material and give feedback within your online course.
  - If you were using TopHat lecture participation software in your face-to-face lectures, you can assign the lecture as “homework” to allow the students to be engaged in the lecture material.
  - **Mini-quizzes can also be set up in Canvas as a way to gauge student understanding of the lecture material.**
- Promote interaction with the students
  - Use discussion groups to encourage student interaction (you may already have them set up in your face-to-face course). Assign discussion questions related to the lecture material to engage the students. The discussions can either be through the discussion board or encourage the
students to meet virtually through Zoom, Hangouts, or other videoconferencing.
  ○ Give feedback and encouragement to your students through announcements on Canvas or brief video messages.
  ● **Set due dates to keep students on track.** There is a tendency for procrastination when there is not a regular meeting time. Encourage the students to use a planner/calendar to keep track of the due dates so they don't fall behind.

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**Thomas Brumm, Associate Professor, Agricultural and Biosystems Engineering**

One Tip: We are teaching using computers. Computers will mess up both for the instructor and student – it’s in the nature of computers. **The key to surviving foul-ups is communication.** Instructors need to communicate to students (e.g., emails, Canvas announcements) and students need to communicate with instructors (likely email) when things don’t work as desired. Once the foul-up is identified, help can be found (Brenton Center, etc.). And **being flexible also helps.** If a student can’t make an assignment deadline because of whatever their situation might be (and they inform the instructor), what real difference in learning will an extra day make?

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**Jennifer Bundy, Assistant Professor, Animal Science**

- Update your syllabus and send out an email or pre-recorded video to discuss the changes to the course. This will cut down on the amount of questions that you receive via email.
- Keep it simple – Record your lectures via WebEx or Panopto and then post to Canvas. If it’s your first time teaching online, stick to the basics instead of trying to incorporate a variety of technologies.
- **Use the discussion tool in Canvas to allow students to post questions and answer them in a timely fashion.** This cuts down on the number of repeated questions that you receive via email.
  ○ Have “discussion times” or “Q and A” times before an assignment or quiz is due. This provides some structure to the course with set times for some activities. It is also very satisfying for students to ask questions and receive an answer right away since you have dedicated this time to the discussion.
- Communicate, communicate, communicate – When students are operating from a distance it is easy for them to get distracted and fall off course. Send reminders, tips, suggestions, etc. Do not worry about over-communication.

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**Christen Burgett, Associate Teaching Professor, Animal Science**

Here are my tips/advice for starters:
- Think about how you want your course to be set up/organized online – this will help both you and the students. We are all creatures of habit, so the more consistent we can be – the better.
I like to organize my courses online by week. So, for each week I create one module.

- Within each module, I include key content such as the recorded presentation, slide deck that goes along with said presentation, and any additional material (supplemental reading, handout, etc.)
- If you have a lot of content to post per class period within a module, I recommend creating a Page for each day of class. These pages can then be added under each module. Pages allow for instructors to gather similar content all on one page. This helps student associate the content with a specific topic that is again, all in one place.

- **I like “chunking” my lectures into 2-3 smaller presentations/recordings.** This allows you as the presenter to take a break and it is also easier on the ‘cloud’ to download a few shorter recordings than 1 large file. It also makes it easier for the students to view based on internet speed, bandwidth, etc. if the files are smaller.

- **Start small.** If for each class period, all you have right now is a recorded presentation (or are working on one), post it and call it good. Then, be thinking about next week, and challenge yourself to post one item of supplemental material. Great-you’ve mastered that, so let’s think about creating a quiz…and plan to figure that out for the following week. Don’t be afraid to start slow and incrementally. Trying to take on too much too soon can become daunting and overwhelming.

- **If you are new to Canvas, you may find incorporating Quizzes into your course an easy way to check student engagement in course material** – plus, once students complete the quiz – Canvas will automatically grade it for you. Creating a quiz is relatively easy. I like to create my questions first in a Word Document (save that for future purposes) and then create my questions in Canvas.

- **Be detailed when titling handouts/lecture notes/assignments.**

- **Reach out to folks at the Brenton Center.** All of the ideas I have gotten for my online class and how to organize things better, embed video links, etc. has all been the result of meeting with folks at the Brenton Center. Granted, many of our meetings were in person at that time; however, if I had any follow up questions after our meeting, they often would answer them via email rather quickly. Also, they would always record a video of themselves demonstrating said task on their computer that I could watch (and re-watch) so that way I could follow along and do said task myself (ex. Embed YouTube video links directly into Canvas). These folks are the experts on Canvas and always have the answer (or will find it for you) and provide you with the requested information much quicker than you could figure it out on your own.

- **Now that we have all had to transition to online learning, take a moment to appreciate what you have all accomplished and created that can be used for future purposes.** Maybe this has inspired you to offer your course online (either during the summer or as an online section in addition to being taught in person), now that you have half a semester’s worth of recorded material (granted you may want to go back and update/re-record now that you have the hang of it). Perhaps the next time you teach this course and you get sick and have to miss a day of
lecture, now you can post the corresponding recorded lecture/supporting material that you were supposed to present live that day.

Haozhe Chen, Associate Professor, Supply Chain Management

- We can’t pursue perfection with such a sudden change, and we have to realize that online course delivery can’t replicate classroom experience 100%. If the goal is to totally mirror classroom teaching, it will create a lot of trouble and extra work for both faculty and students.
- Faculty should take another look at the course learning objectives and determine if these can be achieved in different ways in an online learning environment. In fact, we must admit distance learning has its own advantages.
- Faculty should try to keep things simple – look at the online course from students’ perspective. Is it easy to navigate? Are the tasks feasible to complete? Is it really necessary to delivery real-time lectures? etc.
- Ask for students’ feedback and suggestions – after all, we are trying to help them learn.

Nick Christians, University Professor, Horticulture

Let them know that I am available if they need advice. email: nchris@iastate.edu

Kathleen Delate, Professor, Horticulture

Since the shutdown, I did my first remote guest-lecture class through Zoom last week with the University of Florida, who are doing all their online instruction as live (synchronous) classes. They feel it keeps students on schedule better as many will try to put off looking at classes until late if they are not required to log in.

The way the UF instructor handled it was that she took roll-call at the beginning to see which students were there, then put the camera on me and I shared my PPT for the lecture, until students asked questions, where she changed the camera view to the particular student asking questions. What was really great was one student took his iPad with camera outside his house and showed the class his cover crops, which led to an in-depth discussion on the types he planted. All in all, a very successful class.

I did have help from Rod and Allison in the Brenton Center, who are great! They can help with remote recordings too.

Good luck to all the teachers. Please let me know if I can help you guys in any way. Remember, we’re doing it for the students who need continuity in these stressful times.

Thank you for all you’re doing!

David Dornbos, Lecturer, Agronomy
• Keep it simple, whatever you do.
• It doesn't have to be perfect first go, you can go in a fix and optimize as you become aware of how students are using tools.
• Personalize your communications as best you can.
• If you had face-to-face classes before the Covid-19 separation, leverage those relationships.
• Use one or two platforms, as simply and uniformly available platforms as possible. Students are not as good at this type of technology as you think.
• Teach each class asynchronously or synchronously, not both. I am teaching two classes and developing another at this time. One is a small capstone that requires discussion, Zoom and WebEx work well for this - but students will need some extra prodding to pipe up and talk. Be patient with them, longer rhetorical pauses do work. The other is a larger (35 students) class I am teaching asynchronously.
• Asynchronous should be the preferred route … voice over PPT is basic but can be effective. Use more pictures and less words. In my STB courses I am in clear violation of the next rule … keep your class segments short - 10-15 minutes. Currently, I am chunking a 50 min lecture of PPT into 3 or 4 sections (30-35 min of recorded time), with a short activity or response between them.
• As much as you can make assignments activity focused, do that. In my Bio courses, I am sending students outside to observe features that they can report back in a "wiki" or a "discussion thread" - required participation, for which they receive participation credit … so fast and easy to grade. Another purpose for these is for me to understand what students do and do not understand. A quite perusal of the threads reveals a lot!
• I try to stay conscious of how much student time and my time will be required. Fifty minutes of discussion or "lecture and activity" and no more than two hours of work outside of class for the average student.
• Testing is all via online tools. Maintain a time limit and randomize responses (and question order) to minimize cheating. If you ask more application questions, be aware that they take students a little longer to answer but it makes looking up answers really hard. Student answers online are not as good as on paper often, so I grade with a curve. In my questions, however, I don't hold back; I ask questions electronically like I would on paper.
• Have students write more, but short. Reflections or open-ended thought-provoking questions reveal a LOT about what students really know. Keep them short, so that you don't burn too much time reading those thoughts.
• When grading, I'll read several student responses first to determine where the most common responses are wrong. Then I'll write two or three responses back to students in a Word file, from which I cut/paste into student emails so that I need to type a lot less.

Steve Freeman, University Professor, Agricultural and Biosystems Engineering
• My best advice is to do everything possible asynchronously and to keep it short and simple. Chunk your presentations into 15 minute segments. Narrate your
PowerPoint without a talking head to keep the file size smaller for those on slower internet connections. For the same reason, you don’t need to record your PowerPoint at full screen size.

- Stop emailing students as much as possible. Try to keep communication through Canvas so that there is an archive of your advice and so all students benefit from the questions of others. Consider using announcements or a general course discussion (in addition to any related to assignments).
- Over explain assignments and expectations. Students will not complain about too much information when they can’t ask you for clarification during class.
- **Don’t expect your course to be perfect.** I do one take recordings because if the students were in class, they would get my hesitations, pauses to gather my thoughts, and occasional mistakes so my recordings, I just apologize, correct myself and move on, just like I would in class. If students are recording presentations as part of their assignments, be forgiving of them as well as they are also learning to do something new.
- Rethink any group activities. It is possible to work in virtual groups but is harder than working together face-to-face. Ensure that your virtual group assignments have a strong reason for still being group assignments.
- Consider rewriting your exams to be open book, open notes exams. Change the questions you ask and use time allotments to ensure that students study and prepare. Expect them to be using the internet and their textbook during exams, so just make it part of the process.
- Keep synchronous activities to a minimum. Consider online office hours using a WebEx meeting room so students can interact with you live if they have questions.

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**Jack Girton, University Professor, Biochemistry, Biophysics & Molecular Biology**

- Our students are very tech savvy and will probably understand the system as well or better than you, so do not worry about that.
- Some students simply will not like the online format, and that is not a reflection on your teaching.
- If you make a mistake with the technology, just admit it and move on, they will understand.
- You must accept that this mode of teaching is different and will require a different kind of effort and you will receive a different kind of feedback. You are probably used to interacting with the students in class and have developed a "feeling" for the class that allows you to tell when they get (or do not get) a point. That will not be there and so you cannot make spontaneous changes or repeat the point to try to make it clear. You need to think ahead about the parts of the class that are always difficult and plan accordingly.
- After 40 years as a faculty member I find most students get past the mode of delivery and learn the material just fine in this format, so do not worry, they will make it, and so will you.
- **If you get stuck with the technology ask for help.** There are a lot of people around who have been there before and who know many neat tricks!
Susana Goggi, Professor, Agronomy
We are all thinking of you and wishing you a successful end of the semester. We all know the tremendous job you are doing and the huge effort this requires. Some of my experiences are:

- Keep it simple. Don’t try to migrate the entire face-to-face course as it was before the pandemic. Think what the main concepts are you want your students to learn. The first year I taught online, I built a simply structured course with the essential concepts to be learned. I built the course up in consecutive years, once I understood the technology better and the learning needs of online students.
- **You are not alone.** Use all the ISU resources available to you for minimizing your stress. We are very lucky to have resources like Brenton Center and CELT available to us. Call for help, rather than get frustrated. They can walk you through the steps for doing what you want, or even log into your Canvas course and show you.
- Grade vs. Learning. Seriously consider making your course Pass/Fail or adding short extra-point exercises to help with learning the important concepts. Your students are also stressed and concerned, just as you are.
- Stay safe and healthy!

Nancy Grudens-Schuck, Associate Professor, Agricultural Education & Studies
- **Chunk your messages** (like this). Use bullets in the Module pages.
- Avoid dense text everywhere.
- Use Announcements but keep them focused. Like this: "Come back to class students! Spring Break is over."
- Explain to students how you are using Canvas, because teachers use Canvas differently. Again, use Announcements. "I finished grading everything. You should have a numeric grade, a scored rubric, and a feedback comment. If not, send me a note." If they never see your comments on a paper, neither of you will be happy.
- Use text or video to convey warmth and pride in their work. You would send positive messages in class but must find alternative ways online. Use Discussion, Announcements, or live or captured video." I was so pleased with the range of topics send for the last assignment. Keep going with the creativity."
- I do not use videoconferencing to teach undergrad lecture.
- For videoconferencing help sessions, I use a prep sheet that I upload using Screen Share. I write down the student names who participate (it’s extra credit) and that is the sequence I call on them. Volunteering does not work very well using Zoom, for me.
- Peer Feedback works well using the Peer Review app in Assignments. It is an intermediate level feature, but if you want student interaction, Brenton Center can help.
I learned how to use Canvas Studio video in the last three weeks thanks to Brenton Center, and I love it! I have made several 12- to 22-minute videos. Quality is good enough!

I put as much content in Canvas as possible, all the way to the end of the semester, and I published all of it at once. I don't hold out. It annoys students. If I have an unfinished module, I just put an "under construction" note at the top.

Post pictures. I don't post funny stuff. I mainly post content area stuff. But I posted a picture of myself in an Announcement because students are experiencing some disorientation regarding their teachers and institution.

Discussion areas are usually used for introductions, but they can be used for other uses. If they are not in your grading scheme now, you can add them as extra credit. Just as for other assignments, specify a word length. 300 is my preferred word length for Discussion posts. The counter is at the bottom right.

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**Mark Hargrove, Professor, Biochemistry, Biophysics & Molecular Biology**

- Communicate and keep lines of communication open. If you respond promptly they will be happier. **If you don’t plan to monitor a certain avenue of communication (such as Canvas discussions), turn them off so that you don’t have lingering lack of communication.**
- Don’t stress out too much about things not being perfect. I have known instructors who would not record their lectures for fear of making a mistake, as though the whole world would then pass judgement on them. You will be lucky if your students watch your lectures! Do the best you can and don’t worry about it.

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**Anna Johnson, Professor, Animal Science**

- The one big thing I learnt was online does not equal in classroom in regard to delivery. So, the one big thing is to chunk out your lectures (or labs) into 10-15 minute segments. So, a 60-minute lecture I would recommend six (10 minute sections).
- **When you record, speak SLOWLY** and count 2-seconds BEFORE you move to the next slide. An excellent microphone is a must and be aware of background noises such as fans phones, dog barking etc.,
- I would also advocate a short non-graded or graded quiz on retrieval at the end of each section is best BUT for sure the end of the lecture, to make sure that they have the main themes locked in before they move on.
- Break it up, so insert a relevant URL, reading, video, pictures, etc., not just reading and words!
- CANVAS must be neat and organized and follow the same flow. Make it VERY easy for students to locate the stuff. So, I do Week 1 (title) and then a sub heading Tuesday and then Lecture slide, then reading, then a study aid then homework. It is easy to find, easy to collapse, navigate and do.
- Make sure students know HOW to contact you – is this through CANVAS, is this through your @iastate email?
I would suggest having virtual office hours available and SI virtual as well, build this in! This gives constant support for your students.

David Kwaw-Mensah, Assistant Teaching Professor, Agronomy

- The feeling of anxiety is real for anyone who is teaching an online course for the first time. That anxiety is rooted in a paradigm shift from onsite teaching in classrooms and larger lecture halls to one that is virtual, which one is not familiar with. That anxiety is the result of fear of failure and potential unsatisfactory student evaluations.
- There is also the issue of online course delivery method. Will the course delivery method be a real-time online virtual interaction by ZOOM, WEBEX, etc., or exclusively online with the course objectives clearly stated and modules with weekly readings, assignments and discussion topics laid out, and the instructor only does the grading with comments? There is anxiety about “which technology is best suited for the online course delivery?” and the ability to set the material in each module to meet the objectives of the course. This anxiety is rooted in how well-versed one is in technology to use.
- The other challenge with online instruction is office hours to address students’ concerns and by what method? With onsite teaching, students can visit for office hours either as an open door policy, or by strict time schedules. With online instruction, the approach an instructor adopts for office hours, deemed as best suited for students and by what method (Phone or Email) is very essential. I have set time schedules for office hours that students can call my office phone number. However, I also allow students to send me daily email with pressing questions and concerns (more like the open door policy).
- The biggest part of online instruction is addressing students concerns and questions. If the course delivery method is real-time and video-based, a question asked by one student can be answered for every student in class. However, if the instruction method is exclusively online without any real-time interaction with the students, then students’ concerns and question should be addressed on individual basis. Should the instructor realize that a particular concern or question is common to several students in the class, the instructor can prepare a generic answer and post it as an announcement for the class.
- There could be some level of flexibility with online instruction. However, one most important point to note with online instruction is never to lag behind addressing students’ concerns and questions. This means checking email and canvas inbox regularly.
- One other important aspect of online instruction is grading of assignments and exams. Students appreciate timely grading of assignments with feedback (formative assessment). The same goes for midterm and final semester exams (summative assessment). That always reflects in the students’ course and instructor evaluations.
- It is important to keep the virtual classroom welcoming by treating students with respect and dignity. The uniqueness of each student in class regarding
personalities, learning styles, communication styles and how to answer questions becomes very obvious in online instruction. Therefore, it is very important that students are treated as individuals with respect and dignity in the online class. It is also important to set the stage by posting an announcement upfront with expectations and possibly, a word of encouragement to the students in class before classes begin. Be accommodating, but do not compromise students’ integrity and their personal leadership and academic development.

The good news for all first-time online instructors is that CALS has an excellent IT support system, which includes the Brenton Center and the Dev Lab in the Agronomy Department. The individuals in the CALS IT support system have excellent expertise to assist instructors to be successful in their online course instruction. Those individuals will help troubleshoot any technical issues. Please do not hesitate to contact the CALS IT support team because their pleasure is to be at your service as your support system to make you a “cutting edge” online instructor.

Finally, take courage colleagues, and don’t feel lost or alone with the current shift to online instruction because the CALS IT team is your “safety net” for success, and I wish you great success.

Gregory Lamka, Lecturer, Plant Pathology and Microbiology
The initial challenge if not familiar with Canvas is how do I present the materials in an organized fashion? Per general guidelines I create a "Module" in Canvas for each week. Within each module are the lectures, discussions, tests/quizzes, reference/reading materials. This makes it a one stop for each week.

Lectures:
- Recommend < 30 minutes each as this is uninterrupted speech so a lot can be presented in short time
- I use voice over power point presentations to emphasize key points
- Post a PDF of the presentation for students wanting to print it and take notes
- Usually 2 per week

Discussion questions/topics:
- Assign one approximately every other week
- Students have 4 days to respond directly to my posting and to the posting of two of their classmates
- Structured in Canvas so students cannot see other students posts until they have made their initial response to my original question/issue
- The goal is interaction so I try to respond/interact to all students initial posts
- Grading focuses on content of responses, have they met the minimum number of post within required time frame. This is a discussion so little regard for grammar, structure, etc.

Papers:
- Assign topics that require use of multiple concepts within the class.
- Paper due on weeks when there is not a Discussion or Test.
- Require scientific style of writing including references.
- Send comments on each paper back to author.

Tests/Quizzes
- Tests are open book (multiple choice) otherwise must send students to testing centers.
- Tests are timed limited so students must work their way through efficiently.
- Students are reminded they must work independently
- Questions/answers are randomized by Canvas

One important objective is to have something due nearly every week such as a discussion topic, paper, quiz, etc. to help the lecturer understand which students may be falling behind on the materials.

I send out a broadcast email each week to the class introducing the topics that will be covered and discussing all assignments/materials.

Debbie Lee, Assistant Teaching Professor, Agronomy

At the risk of seeming to look for the lemonade from the lemons, from my perspective, you already have a helpful head start on remote instruction. Your students have had an opportunity to see you in the classroom and you have had an opportunity to get to know them. Possibly you have also already had some assessments. This situation is different than 'starting from scratch', with the students being totally unfamiliar with you and your expectations, and you likely being totally unfamiliar with the students. I believe that this familiarity, trust, and understanding will be helpful to you all as you carry forward through the remainder of the semester.

I have taken a few courses as a distance-education student. My primary worries were (1) access to a prompt response when I had a question about the homework assignment, and (2) a desire for prompt and detailed feedback regarding my performance on assessments. As an instructor, I have tried to make it a priority to respond to questions as quickly as possible, knowing that the student may have a limited window of time to be focused on homework. I have also made it a priority to provide detailed, prompt, and personal feedback to the degree possible (realizing that enrollment numbers and assessment types vary).

The word “remote” is very appropriate to the situation. A distance-education student can feel very isolated from the instructor – What is the instructor planning? Am I going to get a ‘surprise’ assignment? How does the instructor view my performance? The instructor can feel very isolated from the students – Are the students understanding my instructions and the course content? - Are the students frustrated? Happy? Excited by the material? Bored? These feelings come with the situation. I have found it helpful to be mindful of the circumstances and to remember that the students may not be
obsessing over the course as much as I am. I attempt to provide a measured amount of communication to keep the lines open, but not flood them.

Donald Lewis, Professor, Entomology

- Tell students the secret to success is to read the instructors emails. It’s clear from my experience that some (many) students don’t, or they don’t read past the subject line. I put blatant quiz hints near the bottom of email messages to the class. Some students miss the easy questions and points by not reading to the end.

- Communicate frequently, regularly, and personably. There has to be a better word for “personably.” I send the class three emails every week (beginning, middle and end). Tell the students what they need to know in a conversational tone as if you were talking to them. Let them know about you. I talk about the weather, walking the dog, watching the stars the previous night, the brilliance of the full moon, the disappointment that the full moon came on an overcast night. I admit to them when I’m not pleased with a particular lesson, or that a link is not working now, but I’ll fix it shortly. My conversational tone tends toward sarcastic, so rhetorical questions happen. “You do remember the common insect orders, don’t you?”

- Maintain a routine. Every week has the same schedule of events. Consistency.

- Offer advice and hints. Some students don’t need it but some do. “Be sure to notice the leg position of the dung beetles when you watch the Nat’l Geo video.” “Remember to close all other web sites and browsers before you start the online quiz.”

- Be kind. This might be easier for me because I teach a non-majors service course. Is “service course” still a thing? When a student emails on Monday morning that they went home for the weekend and forgot to take the previous week’s quiz before they left, let them make it up. What have you got to gain by being cruel or belligerent? Do you really think you’re going to teach them a lesson because it’s their fault they screwed up? Empathy and compassion are wonderful qualities to model for our students.

- Online quizzes cannot be guaranteed to be closed-book unless you require a proctor or testing center (not happening now!). Ease your paranoia by assuming students will cheat no matter what you do. Make up your mind that you are writing open-notes quizzes and write the questions accordingly. Also, do what I have not found time to do; create a question bank with lots and lots of questions.

- Look for students who are struggling. We never know what the voices inside other people’s heads are saying. We are less likely to see the stress, anxiety, or debilitating complications in students’ lives when we don’t see their faces every day. Reach out to students who missed a quiz, or even if their score was lower than usual. Ask if they are ok and is there anything you can do to help but do it kindly. No accusations, no face-the-consequences speeches; Just, I noticed you didn’t do as well last week. Is everything ok? This is a combination of “communication” and “be kind.”
There are other common sense suggestions on the website. For me, an important one is, “Keep up with grading.” Score Discussions and Quizzes as they come in rather than let them pile up. That’s fairer to the students and eases your end-of-semester burden.

Finally, to instructors: use your network to ask other instructors what works for them. Ask for help from the Brenton Center and CELT specialists. I would not have found Canvas Studio on my own. Be kind to yourself. It doesn’t have to be perfect or movie studio quality. Do your best and a little better the next time.

Mark Licht, Assistant Professor, Agronomy
I’ve been teaching an online course for 3 or 4 years now, and I think that I am still learning how to do it well. My students and many of the undergraduates now would benefit from asynchronous learning opportunities.

- Avoid synchronous/live lectures. Or if necessary, break into 15 minute segments with ‘commercials’ in between. Attention spans looking at screens and effectively learning can be difficult. Make it easier by breaking up the lecture.
- Supplement lectures (live or recorded) with additional material, small discussions, and activities.
  - Additional material may be sources from Extension, credible webpages, or scientific literature. The key here is to find the best resources that concisely reinforce the learning objectives. Don’t overload with lengthy documents where the learning objectives get lost in jargon and verbose text.
  - **Small group discussions are key to keeping students connected.** They should be no larger than 5-8 students. Provide clear guidelines for what you want in a discussion. I require at least 1 original, timely post and 3 meaningful response posts (i.e. can’t just say I agree). I lay out that discussions should adhere to strict professionalism guidelines (i.e. no attacks on an individual but rather constructive criticism that is on topic). Provide enough instruction to make sure they have a targeted discussion to learn from each other.
  - Activities are important as another way to reinforce learning objectives. I’ve had students use PEWI 3.0 to better understand targeting of conservation practices across a watershed. This then gets followed up with an assignment that dives deeper into the learning objectives of looking at the complete cropping system from soils to crops to economics to community aspects. But keep in mind that activities should target a learning objective and not just be busy work.
- **Take questions and SHARE questions.** Often students send me a question personally. The first semester I taught I replied to each individually. Then I realized that many of the questions were similar. The second semester, I send emails to the entire class with the question and answer. This dramatically reduced the number of questions that I received.
- Be available. I hold ‘virtual office hours’ using Zoom for an hour on Wednesday early morning and an hours on Thursday late morning. I have no agenda other
than to talk with students about questions they have with course materials. Sometimes, I have several student other times none. When students utilize this, I notice they perform better on assignments. When I have none, I have just created 2 hours of uninterrupted work time.

- While this is the last one I mention, it’s probably the most important: COMMUNICATE! These are uncharted waters for most students. Tell them what to expect and when. This goes for learning objectives, assignments, exams, and even when you will have grades back to them. You cannot over communicate with your students.

Steven Lonergan, Professor, Animal Science

- I fully recognize that not meeting “in person” is a disadvantage. I personally really like the connection with students. I do pre-record my lectures, but then schedule once a week (or maybe just right before exams) WebEx review sessions. Attendance at a review session (either in person or online) requires submission of a question. These questions get the ball rolling pretty quickly. (Jan Thompson, NREM, gave me this idea a few years ago and it really works great.) These sessions provide some means to make connections with the students.
- Use low stakes assignments (untimed) to get a handle on what students are struggling with. It also gives them feedback quickly as well.
- Ask questions! I have had to “re-remember” how to do certain tasks. I have had excellent help with the Solution Center or Brenton Center.

Thomas Lubberstedt, Professor, Agronomy

Important in my opinion is communication with students, such as giving high priority to responding quickly to their questions (I try to answer same day) – and providing regular updates (I send a weekly mail on Friday evening about upcoming events/tasks/readings in the following week).

Anthony (Assibi) Mahama, Assistant Teaching Professor, Agronomy

- Yes, I was anxious the first time not knowing what to expect, but knowing exactly what to worry about and asking myself these questions:
  - Will students be able to successfully access the course material and be happy with me?
  - Will the audio/video work when I start to teach?
  - Will the connection be stable or was it likely to fail while class is in session and how will the students feel?
  - Will there be too much static such that what I say will not be coherent and students will be frustrated?
  - How good of a video quality will I make, and will it upload well for students to watch?
- Yes, it will take extra work to do it the first time but that will allow you to do it right AND YOU CAN DO IT (it will be easier and require less effort after that).
• Prepare ahead of time by testing to make sure that things work before class time. But do accept that, as a human, mistakes will happen, be willing to own them, and correct them. As a matter of fact, point mistakes out when you find them before the students do, and acknowledge the students pointing them out when you miss them.

Greg Miller, Professor, Agricultural Education & Studies
• Create a course structure and organization that is simple and easy to follow. Explain the structure and organization to students.
• Think about what you are asking students to do from their perspective. Ask yourself is it reasonable and fair?
• Ask for help whenever you need it. Support staff and fellow instructors can save you much time and frustration.
• Think about how you could use what you learn after the crisis ends. For example, you might see opportunities to use Canvas to enhance your face-to-face classes.

Peggy Miller-Auwerda, Associate Professor, Animal Science
• Keep it Simple
• Students need and like consistency and routine. Thus, every module in my course is set up similarly. A module is set up on a subject, and then a page is set up with information and links on what they need to accomplish.
• Expect the unexpected. Technology will fail. People will have emergencies.

Manjit Misra, Director, Seed Science Center
The idea of making lectures in bite sizes probably gets the best results. If the professors are using videos, about 10 min videos get the best attention and results.

Ken Moore, Distinguished Professor, Agronomy
There is no one best way to interact with students online. The best way for your course depends on the size of the class, the nature of the material you are teaching, and how you have been teaching it. Given the abrupt transition to online for most of us, faculty and students, the best approach to use is the one that is closest to what you have been doing. For me that means meeting the students online at our regular times for lecture and lab and making myself available to them by phone, email and for instant meetings.

One lecture in, this seems to be working well for us. I’ve asked the students for feedback about what is working well in other classes and intend to adopt new strategies as we learn about them. Online meetings work well for this class because it is relatively small (16) and most of the students reside in Ames and have good Internet access. If time, distance and access were constraints then I would find a way to deliver the course
using a more asynchronous approach. I suspect that many of our colleagues are doing just that and I am really interested to learn what works for them and their students. When this is over we are going to be amazed by how successful we were in dealing with the situation and how much we learned from it. It’s like learning how to swim the hard way.

Joe Morris, Professor, Natural Resource Ecology and Management

- Student internet access
  - Do not assume students have a stable Wi-Fi connection needed for online courses
    - Develop take-home exams that allow for open book and notes; exams can be presented on Canvas and collected through assignment portal
    - Submission of exams directly to faculty emails does not meet FERPA requirements as student data is at risk
    - Indicate desired font and have them label their exams with their last names.
    - If using online exams, be prepared to restart individual exams when students have been logged out due to connection issues

- Discussion topics
  - Develop discussion topics that cover course information. To get maximum amount of participation points in the discussion topics please consider the following:
    - Students must participate in discussions; not just saying “I agree” or “disagree”; they have to write actual sentences.
    - Discussions involve answering a question or posing one
    - Discussions involve answering two or more students’ discussions
    - Possibly quote from the provided course materials as well as current online information sources.

- Office hours
  - Use a tool like WebEx or Zoom
  - Check out hardware for both audio and video before meetings

- Outside course materials
  - Be judicious in posted course materials as needed for the lectures
    - Be aware of possible copywrite issues
  - Use appropriate web sites that are current

- Request help from other faculty, Brenton Center and CELT as needed

Gary Munkvold, Professor, Plant Pathology and Microbiology

It’s important to emphasize quick responses to student communications. This is harder to do in a large class, but frequent messages to the class are still important to ensure the students that you are paying attention to their needs. Secondly, it’s very helpful to incorporate short quizzes or other methods of “real-time” feedback so you can judge the level of engagement and learning. Again, this is harder with large classes, but these can
Carol Pilcher, Assistant Teaching Professor, Agronomy

Hello. You may be using online instruction resources for the first time. It has been a sudden change for you and I completely understand your anxiety. Due to the timing of my starting work with ISU, I was given access to Canvas on a Thursday and the Fall semester started on the following Monday. It was a sudden learning opportunity. Just to let you know, you can do this!! And you can successfully finish your course online. Many of my students have full-time jobs and they are completing coursework in the evenings. As a result, I do not use the “Chat” session or more “live” functions of Canvas. I do have a discussion question each week where students can post responses to the discussion question and to each other. I require them to post three responses. A response has to be at least three sentences to be counted as a valid response. This discussion allows for some interaction with the students and also allows this interaction to be on a flexible schedule.

I also have an assignment section each where I ask students a series of questions. These questions are usually essay or multiple-choice. Canvas can automatically grade the multiple-choice questions so it can make grading easier. I do think the essay questions require more critical thinking skills. As a result, many of my questions are essay questions. I try to respond to almost every essay question each week. It takes more time, but I want the students to know that I am reading everything they submit. I also have a reflection section. I ask students to summarize the module (a short paragraph). I then ask the students to let me know what the most important concept was they learned and what concept(s) were not clear. I strongly encourage the students to give me honest feedback and I thank them for this honest feedback. In my opinion, this honest feedback has really helped me understand where I need to make changes to the course.

How you set up your class totally depends on the number of students you have in your class. I hope the tips provided below help you. If you get stuck, send me a screen shot and I can try to help you out. My email is cpilcher@iastate.edu.

Michael Rentz, Assistant Professor of Teaching, Natural Resource Ecology and Management

- I like voice over PowerPoint. I might be wrong in liking it, but I like it.
  - Try a few test slides. Make sure your slides are legible enough to be viewed on a phone.
  - I sometimes have 2 views: the slides and a video of me, but only if my hands and facial expression or held up objects are needed. Otherwise just go with 1 screen, the slides.
No fancy equipment is needed if you speak clearly. I have always just used the native mic on my laptop, and it works fine. Not iTunes quality audio, but as good as in lecture.

- Also give the raw PowerPoint slides and/or notes.
- **Stress that you are here for the students, reachable by email, etc.**
- Students should reach out to us via email, and we should still try to honor office hours, just virtually now.

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**Mike Retallick, Department Chair, Agricultural Education & Studies**

- Keep it simple and, to the extent possible, don’t let technology get in the way of learning.
- Your teaching should look and feel different that face-to-face teaching: this is normal
- **Keep the end goal in mind** – teach to and assessing the student learning outcomes/objectives
- You cannot over communicate with students in an online setting
- Be consistent with due dates (e.g. assignments always due at midnight CST on Mondays) and locations/access to course materials
- The more organized your course format and structure, the easier it will be for students to follow.
- Under these dire times, it doesn’t have to be perfect. Enhancements can come later.
- It’s okay to only be one step ahead of the students.
- Chunk your content into “bite-size” pieces (8-12 minute recordings) of content (Think of breaking down content like chapters, subsections, etc. or an outline format). Include the amount of time in the title so student know how much time they need to plan for. Chunking helps with course updating in the future
- Ask for help.

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**Asheesh (Danny) Singh, Associate Professor, Agronomy**

I find online instruction as a great way to connect with students. It provides flexibility to students to learn while managing their other commitments. I have learned from past experience that students respond better if clear expectations and timelines are established; although timelines need to be set considering that this is a new way of instruction for many (including instructor and students) and everyone is managing (concurrently) multiple things at work and home.

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**Lidia Skrynnikova, Assistant Teaching Professor, Natural Resource Ecology and Management**

- Try to be available for your students 24/7. You are not only their professor but also their tech support. E.g. sometimes the students need help finding course reserves link despite the instructions "the readings are available at the library
course reserves (under the link "Course Reserves" in the Course Navigation Menu on the left side of the screen)

- Send at least two reminders about the due dates.
- Let the students know about the group assignments in advance. Help them contact each other if needed.
- Give the students opportunities to earn extra credit (especially in a current situation with COVID-19).

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Scott Smalley, Associate Professor, Agricultural Education & Studies
A few thoughts I have:
- Keep it simple by setting up your course with the basic information needed for students.
- **Provide additional resources (activities or videos) related to the topic because all of your students learn in different ways.**
- Be available through email or phone to assist students who need clarification or assistance understanding the topic further.

If you have questions, please do not hesitate to reach out and ask for assistance from colleagues, resources available in the college or across campus. As a result, the unprecedented times will help make us better teachers in the classroom no matter if we are teaching online or face to face. By focusing us out of our comfort zone to continue to connect with our student learners.

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Stephen Smith, Affiliate Professor, Agronomy
Online teaching is, like anything else, a subject one can only really get better at by doing. So, for many of us, here we all are thrown in at the deep end!
- If your class is starting online it is essential to start by building the most cohesive virtual group with recognition of individuals and laying the groundwork for students to feel comfortable communicating with other students and with you.
- Provide background about yourself including personal background as you feel comfortable with-how did you get into this field of study and what do you find most interesting and challenging about it?
- Ask your students to share something of themselves along similar lines--why are they pursuing this course of study, what do they hope to gain from it? Are there particular aspects of the area of study they find of particular interest or especially challenging to understand?
- This information helps you bring some degree of personalisation of the course to the students and you can build on some flexibility regarding discussion topics and reading materials down the line.
- Keep your online lectures down to 20-30 mins. Do NOT try and put in too much detail otherwise the students won't be able to see the wood for the trees.
- Record your talk as if you were speaking to the class don't just with a very dull voice read the PowerPoint slides! You might recommend the students listen to each recorded lecture twice.
Having only the essential details with classic timeless examples in the PowerPoint means that you won’t have to re-record each lecture annually to keep up to date.

You can select reading materials and identify discussion sections with specific questions to add further detail to the lecture and to provide the most recent publications that are pertinent. Key issues you weren’t able to flesh out sufficiently in your lecture you can provide in terms of reading materials for that week.

I gave student up to 2 or 3 choices of topic per week to join a discussion group on. This was a mistake! Discussion groups were not balanced and there were technical issues confounding recording of participation. So, select ONE discussion topic OR more than one BUT each for all students.

I found ranking students participation in discussion extremely difficult. Some joined late, others dais a lot but of marginal contribution for example. So next time I will try in addition to participation in a discussion having each student provide 5 bullet points on critical issues they found during the discussion and ask them to provide 3-5 key questions that the reading and discussion raised in their minds.

Students seemed not to be confident in going beyond simply answering simple factual questions presented in the lecture or reading materials. However, it is essential that they go beyond this rote learning and start to feel comfortable asking questions themselves. Asking questions is what they will need to do later in life, and they had better get started on that now if they haven’t already. However, you need to allow them to feel comfortable doing this and to let them know that oftentimes there is no single right answer!

They need and deserve clarity on how marks will be awarded so provide this up front.

Establish 1-2 specific times per week that they: 1) individually can meet with you for specific questions they have and 2) also as a group for group discussion or on topics that are not sensitive to an individual student.

Work with the experts at Brenton Center to pull everything together in the correct format etc. They are great to work with!

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**Jodi Sterle, Associate Professor, Animal Science**

- **Don’t let it overwhelm you.** Keep it simple. Keep it organized. Say it again for those in the back!!!
- Try to post lectures, etc. ahead of time and schedule the releases for future dates (or go back and publish them later). I have had some really long upload times (I have good internet here at home, but I am in the country), so earlier this week when I was posting things as I needed them, it was taking FOREVER to upload some 10-15 minute video lectures. Now, I set it up to post things when I don’t need to use my computer – when I go make lunch, right before I go to bed, when I am on a regular phone call (not a Zoom or WebEx). Seems to work better, faster since I am not doing other things on my computer, and much less stressful. I was getting very frustrated watching that red circle go ‘round and ‘round, and
kept hearing my mother’s voice say “A watched pot never boils” and “Haste makes waste” over and over again. Of course, GETTING to the point when you can post ahead is half of the battle.

- If you are teaching asynchronously, try breaking up the video lectures into smaller chunks. Carefully label them so students have context and order. For example, yesterday I posted 4 video lecture segments for the day. I labeled the Canvas file: “Monday, March 23rd lecture (4 videos)” and made sure that the videos were posted in the correct order. I also included the date (3.23) in the title of each video. This way, it will take less time for you to upload them, and less time for the students to download them.

- I have each set of mini-lectures post on the day that class would normally meet. Since I usually do Tophat during class, I now give them 4 hours from posting to complete a Canvas quiz. I consider this “attendance”, and hope that it keeps them in a routine and from getting behind. It also keeps the total class points on track now that we’ve changed in midstream – some students may be counting on those.

- IT DOESN'T HAVE TO BE PERFECT! I bet if you recorded your lectures and actually listened to them, you would hear your stumbles, “ums”, and pauses. And you KILL it in the classroom. So, now that you are online, why should it be any different? Who cares if it's not perfect? Your students DON'T. They just want the information. Posting in smaller increments also helps with this. **CALS students rock, and they understand that not everyone is perfect.** They have developed a relationship with you already, and EVERY SINGLE EMAIL I have had with my students has been polite and understanding. They have said things like, “I understand that you are swamped right now...” or “Thank you for your endless work for this situation”, and “I’m sure you are incredibly busy keeping up with everything I just wanted to check in to see if I had missed something.”, even when they are asking me questions about something I already posted (but that is another point).

- Which brings me to my next point – OVERCOMMUNICATE. It’s not just for freshmen (and faculty members in your department) anymore. Post, remind, and remind again. If you know me, you know how I feel about emails asking questions that I have already posted the answer to, or that can be found in the syllabus. I am trying to be more forgiving right now. Think of it like this: you are sorting through ALL of your COVID-19 emails to find the latest policy on something – it is overwhelming and sometimes hard to find. The answer to a student question about your class may be buried. Be patient (but I always refer them to the place where I actually did post it, because, well...I'm me.

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**Jeff Wolt, Professor Emeritus at Iowa State University**

Instructors in CALS are very fortunate to have resources such as you and others in Brenton Center as well as CELT to help with distance learning.

Here are a few of my musings regarding online teaching:
Online teaching can be daunting and pose many challenges, but there are multiple ways to teach in a virtual environment and engage students online. Instructors together with students must be willing to experiment and be patient to arrive at a format that works for a given course.

For instructors without prior experience in distance delivery and in a rush to get their course online in a tight timeline, simply packaging course content – PowerPoint presentations, class notes, and articles – as PDFs and distributing to the class can get the ball rolling. Augment these materials with study guides to help the students thread through the materials.

As a next step, consider ways to engage students and provide improved guidance and support with the study materials. A weblog and discussion threads can be quickly implemented in Canvas and can allow for some interaction among students and their instructor. Having ‘office hours’ when the instructor is available online (for instance in a discussion thread) or available by phone or email will be valuable for some students (and ignored by others). Using an app (Facebook, Twitter, …?) to communicate short notes, updates and encouragement to your students might work; but don’t go this route if it is not a comfortable communication tool for you.

Because the current chaotic teaching environment, delivery of content in an asynchronous mode may work best for the student. This takes some planning but adds flexibility that is not easily achieved with synchronous delivery.

Recording lectures overlaid on PowerPoint presentations, such as with Camtasia, is pretty straight forward. The recording allows the student to get a better sense of what the instructor wishes to emphasize. It also helps to personalize the coursework. Don’t spend too much time trying to get the perfect recording. Talk just as you would in lecture and don’t be overly concerned to edit.

Your students will almost always be more adept then you are at virtual communication. Expect some students to be turned off by the virtual teaching environment – that’s okay, you will never please everyone. If you are sincere in your efforts, the bulk of your students will recognize and respect that you are trying.

Many instructors are drawn to live synchronous presentations online using apps such as Zoom. Take into account the difficulties in scheduling and interacting in a live environment, it will take a lot more effort than you might expect and can be draining for both the instructor and the students.

Try lots of different approaches. Don’t be tied to any one idea; try lots of ideas to find what clicks for your class.

Keep material fresh. It shows if your materials are stale – both in terms of content and the way it is presented. Students will call you out if the materials are not consistently refreshed and updated.

Building your course through Canvas is a great approach to online instruction. Canvas has lots of tools and can result in a clear and well organized course. It also can serve as a one-stop shop for the class, so students and instructors have one place to look for course materials, communication, grades, etc.

Oftentimes students will use their smartphones as their sole means of dealing with materials in a virtual environment. Keep this in mind as you plan for online
delivery. Canvas has a very good smartphone app for delivering a diversity of materials.

- Instructors and students lose something when a course is taught virtually rather than in a face to face setting. Arrange for ways to connect. Set ‘office hours’ when you can interact with students in a live discussion thread, by Skype, email, or phone.

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**Ann Wright, Teaching Professor, Management**

Whether you’re teaching online for the first time or are a veteran online faculty member, there are several tips for teaching online which can support all of us during this time of change.

- Make a schedule for yourself and stick to it!
- Organize your Canvas Course. Check out the student view and ask yourself – Would this make sense to me if I were a student? Post the entire week’s assignments, videos etc. no later than Monday morning at noon, (8:00 AM is preferable). Students will be working to organize their week and shouldn’t be expected to check back multiple times for assignments that are posted at the last minute. The first week may be the exception.
- Communicate with your students. Check email multiple times a day and respond if possible the same day. Check email at least once over the weekend and respond to your students. You don’t have to be available 24/7. Or let them know you won’t be checking over the weekend and to be sure to email you by a certain time on Friday if they have questions on the homework so you can respond in a timely manner.
- **Communicate with your Colleagues.**
- Learn at least one new form of technology to use in your online class.
- Post short videos. Attention spans aren’t any longer online than they are in person. It doesn’t have to be an Academy Award winning performance. Be yourself! Students are looking for authenticity.
- Use YouTube videos to support what you’re helping students learn. There’s a wealth of resources already out there.
- Consider WebEx for “presentations” if you’re having teams present. Make it more of a conversation. The most important thing is to find out what students have learned.
- Give yourself a break – you don’t have to be perfect. You just have to do the best you can and keep moving forward.
- Be patient – everyone is doing everything possible to make this a smooth transition in an unexpected situation.
- Take breaks – many new online instructors are used to being in front of a class and moving. Take short walks, even if it’s around the house until the weather warms up.
- Rome wasn’t built in a day – neither will an entire online class. Keep it simple.
- Remember students are anxious too. This is new for them and not what they expected.
- Ask for assistance. Everyone is more than willing to help, but you have to ask. It’s a great time to model what we expect from our students.
- Use this as a learning opportunity – Life happens and it’s how we respond, not react.

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**James Wright, Associate Teaching Professor, Agricultural and Biosystems Engineering**

Thanks for the opportunity to contribute ideas and suggestions regarding Canvas instruction. Matthew Harvey (TA) and I have been teaching Ag & Biosystems Engineering courses, TSM 270, TSM 370 and TSM 372 online for three years together. These courses typically have a large number of students.

When I arrived on campus in August of 2017, I had a window of one week to learn and teach three courses in Blackboard, the online platform here at ISU at the time. The following semester, the campus switched to Canvas, and learning a new online delivery started again. I consulted regularly with Chuanli (Lili) Zhou, in the Brenton Center, for suggestions, strategies and solutions. I attended several workshops, provided by the Brenton Center, to get up to speed quickly.

I wanted my teaching and the student learning experience to be professional, well prepared, and engaging. Thinking about how to best involve the students has been most helpful. While I love the in classroom teaching, online learning using Canvas can offer flexibility and availability of the material for the student on a 24/7 basis. All the tools used in the physical classroom are also available in the virtual course – PowerPoints, live video, written assignments, and quizzes.

Here are some of my approaches to facilitating the courses in Canvas:

- Looking at Canvas like I view my cell phone was a helpful approach. My iPhone is pretty intuitive, with many features I may never use, but are available if I choose to do so.
- I invested the time on the front end to **schedule automatic “publishing” of assignments, quizzes and announcements**.
- Students appreciate weekly communication through announcements and reminders about the course material. I also regularly send emails and announcements about “to do, coming up, calendar, and syllabus references.”
- Most of the students are familiar with online navigation and email me directly if there is something that doesn’t come across clearly in Canvas student view. **Review the Canvas course in “Student View” it’s good way to see the course materials and instruction as the students see it. This will quickly tell you as an instructor what’s missing or doesn’t come across as planned.**
- Answering emails and grading assignments without much delay not only is helpful to the students but helps me stay current as well. The most positive feedback I’ve received from students has been around real time email responses and quickly graded assignments.
I comment regularly on graded assignments with remarks of encouragement or recommendations for improvement.

- Try and populate as many of the homepage links – assignments, modules, syllabus, quizzes, discussions, etc. - on the left side of the screen as possible and make available to the students.
- The online tutorials for Canvas can be a tremendous help in getting useful information.

Additional suggestions from Matthew Harvey (TA):
- Try not to worry too much. Maybe you haven't taught an online course before, but many or most students have taken one. They're ready to work with what you deliver. Again, try not to worry. Students are pretty resilient!
- Often times if one student has a question or concern, there are others. One suggestion is to have a discussion board where questions are posted. Sometimes classmates answer the question and you start to realize you can facilitate collaboration and learning online.
- Don't hesitate to call or consult with those who have taught online before. In the words of a now classic movie, "We are all in this together!"
- Don't hesitate to use the knowledge and experience of graduate students and postdocs that you know. They are likely to have experience with online courses and learning.
- Enlist someone who is not taking your course to be a "test student" so they can give you early feedback, in addition to your previewing things in student view.
- Have students submit a brief reflection (i.e. 200-400 words) on portions of subject matter covered.
- You might really miss the in class discussions, but you will be amazed at the evidence of learning in student reflections and discussion board posts.
- Incorporate current events into a lesson, post, or email. This lets the students know that we are all actively participating in the course.

I hope these ideas help. Each semester additional nuances and improvements are added to the delivery of the course in Canvas. I have found that the students make great partners in achieving the goals of teaching and learning. The Canvas delivery when provided as seamlessly as possible, does its job in aiding the process.

Lori Youngberg, Program Coordinator, Graduate Program in Seed Technology and Business
- Communicate! Students will also be feeling isolated and alone, so making sure you create announcements, emails and discussions. This will help everyone feel more connected.
- If you are doing lectures, try chunking into 20-30 minutes. Students lose their attention and motivation if lectures run longer than that.
- If possible, set online office hours. These give students the chance to check in with you if there are points in the curriculum that are causing confusion.
If you run into technical issues, reach out for help! The Brenton Center is here for you and are wonderful at getting back in a very timely fashion.

Be creative in assignments where possible. It might be very hard to get all your exams online in such a short amount of time, so consider other ways you can assess student learning. Discussion posts where they can share media, new ideas or current articles on a topic, journaling, papers, quizzes that are automatically graded after a short lecture, etc.

Tim Borich, Associate Professor, Community and Regional Planning
The Brenton Center has asked me to provide any tips I might have for those instructing via distance education for the first time. While I have been teaching for over 25 years through a variety of distance education mediums, I have never claimed to be a pedagogical expert. One could say I am giving sage advice, but keep in mind that the word sage can mean “wisdom through reflection and experience” or an alternative meaning is “archaic.” The reader has been forewarned; you decide.

Synchronous vs Asynchronous: If you can manage, do both. Video conferencing, conference calls, or even chats help students engage each other. It also allows for real-time questions and comments from students. I currently use a combination of Zoom and Canvas.

I’ve had distance education students from Japan to Morocco and numerous time zones. Some will have conflicts (work, etc.) that will not allow them to participate in a synchronous session.

The video (or audio) conference is recorded, and then I create a Canvas “page” with the recording. Hence, making synchronous, asynchronous. As a student, even if I can’t make a video conference, I can follow with the tape. Readings, assignments, grading, discussions, are all through Canvas.

My objective here has less to do with my possibly boring lecture, and more to do with all students having access to the timely questions and comments of their fellow students. I’m always amazed at how students from a variety of time zones want to participate to gain a sense of social contact with each other. So, in answer to the great question of synchronous vs asynchronous instruction, I cover both bases and use both.

Keep it Short: When using video or audio synchronous methods, keep it short. You are much less engaging in two dimensions as opposed to three. When I plan a distance education course, I try to keep my Zoom sessions around 30 minutes or less. To be honest, in this current hybrid semester, I am taking a bit longer because of the structure of the courses.
Let Them Talk: We may be social distancing, but we are still social beings. Currently, I am using Zoom with my undergraduate classes and allowing the first 10 - 15 minutes to for students to socialize (just like before class on campus). I begin to teach when their conversations begin to wane. It also seems to bring familiarity to the medium for the students. Discussion rooms on programs like Canvas allow for interaction in an asynchronous way.

Team Projects: It’s been my experience that team projects can work quite well at a distance if structured correctly. In fact, teamwork across distances is becoming more common in many professions. The use of working documents, common data sources, web-based research, e-libraries, all allow for teamwork at a distance. The keys are team formation, structure and communication. For many of our students, this is not a great leap from their on-campus experience.

Reach Out: You will likely need reach out to your students more often at a distance. Keep track of their communication. If you use Canvas, keep on top of its analytics. Take attendance in both your synchronous and asynchronous methods. Your students can disappear rather easily. They are without many of the social and organizational supports found on campus. There is no coming up after class with a problem. If you sense a student going quiet, reach out. Email them or call them if necessary. This will take more effort on your part, and no, you don't need to become a “helicopter professor”. But taking the initiative with instructor-student communication may well be the key factor in determining student success.

You are Not THAT Bad Looking: Social scientists often refer to the art of how we present ourselves as “impression management.” There is nothing like the jolt one gets with video conferencing on laptop or desktop. Every facial blemish, hair out of place, bag under your eye, and crows foot is magnified. Face it (pun intended), you have a camera that is two to three feet away magnifying your face. Once you get past this visual rude awakening, you will find you can function quite nicely. Just don’t be too hard on yourself when you watch a tape. Remember, ISU hired you for your mind….

Be Patient but Expectant: Mom always said, “Patience is a Virtue.” Give yourself some slack, perfection and distance education are rarely synonymous. Patience aside though, setting clear learning objectives is perhaps more important in distance education than face-to-face. Even though the medium has changed, we are still in the role of teachers. In distance education, you need to have expectations and communicate them clearly.

Yes, The Brenton Center is That Good: Hey, that statement is coming from a faculty member in the College of Design. Be patient - I'm guessing Brenton Center staff is just a bit busy these days, but I find their level of expertise and willing to assist faculty outstanding. Oh, and before you ask, the College of Design has been for that
assistance for the past 10 years through our joint programming with CALS in the GPIDEA online Masters of Community Development.

In conclusion, the reader has been forewarned that you may find my sage advice as wise reflections or simply archaic. It is certainly founded in experience rather than expertise. It does feel strange to have so many of you doing something that I have done for so long. My hope is that the well spring of innovation that occurs as the ISU world begins to focus upon distance education will make these comments truly archaic.