All, in preparation for delivering exams via ExamSoft in the upcoming semester (including remote exams), here are a few suggestions/best practices:

Ensure students are able to complete computerized exams
- students have been instructed to contact Mark Sharp to check out a laptop if they do not have access to a satisfactory computer and/or they have had prior issues (this is a relatively small number of students – in general, the system requirements for Examplify are fairly minimal)
- we will set up practice exams that students can use to test their machines – please encourage all of your students to take advantage of this
    - this is particularly important for P1 students (new users) however because some students may be taking exams from home and could be using different computers than they have used previously, please encourage all students to complete the test exam
    - encourage students to start their computers well in advance of the actual exam time to avoid delays caused by scheduled Windows updates, etc.

Scheduling exams prior to Thanksgiving (i.e., while students are on campus)
- we recommend administering **synchronous exams during their regularly scheduled times/dates where possible**
    - this hopefully ensures that students have no conflicts (i.e., they should have already had these times blocked off on their schedules)
    - this allows us to provide live support via telephone if a student experiences a problem
    - this substantially decreases the possibility of academic dishonesty
    - some schedule changes may be necessary to accommodate students who miss exams due to illness and/or are in alternate time zones etc.
- for students completing exams **remotely**:
    - we recommend releasing the exam password by BOTH email and a Brightspace announcement 5 minutes prior to the scheduled start time
    - students should be told that their exams should be uploaded within 15 minutes of the scheduled end time (note that this does not give them an additional 15 minutes -- exams are timed, and the system shuts down when time expires – this just adds a grace period for students who may have upload difficulties)
- **students with accommodations** will automatically receive the additional time that they are permitted (e.g., for a 60 minute exam, a student receiving 150% time will automatically have a 90 minute time limit for her/his exam).
        - please confirm with the ExamSoft team the students in your class who receive accommodations so that we can ensure this information is up to date.
- for P1/P2/P3 courses, we recommend using ExamSoft for non-exam assessments, quizzes, and assignments
    - ExamSoft exams are conducted offline and are not affected by bandwidth issues
    - ExamSoft support is much equipped to deal with any difficulties that occur during exams
    - P2/P3 students have substantial experience using ExamSoft at this time

o   ExamSoft allows flexibility for multiple types of exams and assignments

Scheduling exams following Thanksgiving (i.e., all exams remote)
- follow same guidelines as above
- IF synchronous exams are not permitted:
    o   encourage students to take exams during a specific time window (e.g., a traditional 2 hour window) during which support can be offered
- instruct students to immediately power off if they experience an issue
    o   powering off stops the exam "clock"
- anyone encountering a problem should email the instructor and that email should include a cell phone screen shot of their issue.
- remind students that 99% of ExamSoft problems can be solved by rebooting
- for any student that experiences a problem that we can't fix during the exam time, we can set up a customized exam for that student to complete

Conducting exams
- from a pragmatic standpoint, assume that in the absence of a proctor, most exams should be considered open book/open note
- **best practice for most "typical" exams to minimize collaboration between students during exams is to conduct exams with a time limit, with randomized questions, randomized answer choices, and with backwards navigation disabled**
    o   this virtually eliminates the possibility that a given student will get the same question at the same time as another student
    o   makes collaboration very difficult in a synchronous exam
- note that if you can either conduct a "secure" exam (the student computer is essentially locked down) or a nonsecure exam (students can access other resources on their computers).
    o   if you chose to make the exam nonsecure, you can decide whether to give students full access to everything or to block the internet (i.e., they could access stored files, but not the web).
        ▪   this distinction can be important in the case of an open book/open notes exam because students may have their notes stored on their computers → ultimately, either choice is fine, students just need to be aware of this in advance
- for **open book/open note** exams, it is important to tell students that the exam will be timed and that they need to study in advance (i.e., they will not have time to complete the exam relying only on their notes if they have not studied in advance)
- consider emphasizing more **application/synthesis based questions** – multiple options exist to do this on ExamSoft
    o   short answer/essay questions can be used on any exam.
        ▪   you can set character limits for the answers
    o   there are different ways to administer multiple choice questions
        ▪   e.g, "select all that apply" questions with partial credit can be used (and are preferred over "multiple-multiple" type questions)
    o   an easy way to add some application based questions to your exam is to pick a few MCQ and have a corresponding (grouped) question that asks students to

explain their rationale for that question (you wouldn't need to do this for every question, but it could add to the assessment).
- o options exist for conducting different types of exams (e.g., longer essay type exams can be left open for several days at a time, and the time to complete an exam can be extended for several days)

Problems during exams
- for exams conducted during their regularly scheduled time, we can provide live support via phone during that time
- if students experience **any type of error** (including an upload difficulty)
  - o instruct students to **immediately take a screen shot and then immediately power off**
    - ▪ powering off stops the exam "clock"
- anyone with a problem should email the instructor/coordinator **immediately**, with a number that they can be reached, and that email should include a cell phone screen shot of their issue
- remind students that 99% of ExamSoft problems can be solved by rebooting
- for any student that experiences a problem that we can't fix during the exam time, we can set up a customized exam for that student to complete
- we can look at the time log for any exams submitted late to ensure that they were actually completed during the allotted time window

Discouraging academic dishonesty
- include an honor code statement
  - o CoP Academic Integrity Guidelines
- consider synchronous vs. asynchronous assessment
  - o timed exams
    - ▪ tightly timed exams help mitigate all three concerns
    - ▪ add 5 minutes to "normal exam time" to account for delays
    - ▪ ideally: have set exam times
  - o enable all security features
    - ▪ randomized question order, randomized distractor sequence, no backwards navigation
  - o conduct exams **as open note/open book**
    - ▪ closed book/closed note remote exams penalize honest students
    - ▪ properly timed exams ensure that students need to study to succeed (i.e., there is not sufficient time to "look up" every answer)
    - ▪ students need to be aware of this (anecdotally some students do worse on the initial open book exams)
    - ▪ open note questions that test higher level skills simulates clinical practice
    - ▪ it is possible to allow access to stored files but not the internet, or access to both stored files and the internet
      - • many students do not print their notes
  - o consider multiple exam versions (particularly for asynchronous exams)
    - ▪ even minor changes to questions can have an impact
  - o we can investigate irregularities

Post exam reviews
- challenging if question integrity/security is desired
- consider class vs. remote review
  - requires rationale to be entered with questions
  - secure remote review where students get a short time window to review only the questions they missed
    - recommend tight timing (e.g., 15-20 minutes)
  - in-person or Webex reviews with TA's

Summary of best practices
- start early
- consider a low stakes/practice exam prior to the first high stakes remote exam
- have exams ready for download at least 48 hours in advance, encourage students to download exams early
- enable all security settings
- have a designated time window (i.e., the usual exam time) during which support will be available
  - if allowed, synchronous exams are preferred
- open book/open note exams are preferred
  - students need to be told to study as if they were preparing for a closed note exam
  - remember that many students don't (and in some cases, can't) print their notes
- release the exam password by BOTH email and Brightspace announcement 5 minutes prior to the scheduled start time
- students should be told that their exams should be uploaded within 15 minutes of the scheduled end time (note that this does not give them an additional 15 minutes -- exams are timed, and the system shuts down when time expires – this just adds a grace period for students who may have upload difficulties)
- review post-exam statistics
  - item analyses
  - category reports
- release strengths and opportunities reports