DMS Common Exams for Fall 2020 will be administered in Canvas with proctoring using both Respondus LockDown Browser+Monitor and Webex.

- 1. **Exam day procedures** Students will use their phone to join a Webex scheduled meeting hosted by the instructor at 4pm (4:20pm for 60 minute exams). Students will then sign in to Respondus, go through the start-up process and environment check, and take the exam. After an individual student submits the exam, the student will log out of Respondus and leave the Webex meeting, and then be required to submit their work upload (if applicable) within 15 minutes of submitting their exam.
- 2. Language should be put into syllabi addressing technological requirements. "Exams will be proctored using both Respondus LockDown Browser+Monitor and Webex. Students will be required to join a Webex meeting from their phone with their cameras on, and to access the exam through LockDown Browser on a Mac or Windows PC with webcam. Students must follow all instructions related to environment checks and camera positioning." (The specific language may differ). Note that LockDown Browser does not work on Chromebooks, and in cases where iPad use was enabled, there were a significant number of technical problems for students who used iPads.
- 3. At the **beginning of the semester**
 - The exam coordinator will work with ODL to create a Canvas course for each coordinated course and to create exam shells for each common exam. The presentation and technical settings will be as uniform as is possible based on the needs of each course.
 - The exam coordinator will provide students with a demonstration video and instructions of expected behavior and procedures, including what is expected in an environment check.

4. Writing exams:

- Common exams must be completely written and published by the Saturday before Wednesday exams to allow for OARS accommodations, conflicts, and other complications.
- All questions should require an answer in the exam, which must exactly match the work upload answer to receive any credit. This can be a partial answer if the full answer would be difficult for students to type (i.e. for solving a Calculus 1 IVP, enter just the constant term in the exam and give the full answer on paper).
- Instructions for submitting work uploads will require work submission "within 15 minutes of exam submission." (For non-coordinated classes, take care in wording similar instructions carefully to require submission "within x minutes of exam submission" as opposed to "by x time." Timestamps should be checked. Students should be instructed to immediately email their work to their instructor if they experience difficulty submitting on Canvas.
- Exam scores and exams should be hidden until grading is finalized. When grading is finalized, exams should be made visible to students.
- 5. Some specific policies to consider on a course level-
 - Unique Night Exams It is probable that some students taking exams with the night section will be exposed to information about the exam from day section students, so a different exam (of similar difficulty) may be given to the night section.

- Honor Code Statement Insert in each question a statement to the effect "(This question is a copyrighted exam question at New Jersey Institute of Technology and answering this question in any other context may be a violation of state law, NJIT honor code, and the terms and conditions of this website.)"
- Lock Questions
 - The preferred method to reduce cheating is to require students to proceed in order, and after each question is answered, the answer is submitted. This prevents students from having time to get outside help on each question, but will require students to plan ahead for how long to spend on each question. Ideally exams will provide information to help in that planning.
 - An alternative that adds some flexibility to student pacing is to create "question clusters" by having multiple exam questions show up as a single Canvas question. Exams can be broken up into 2 or 3 clusters where the students have roughly 30 or 45 minutes per cluster. The mechanics are somewhat clunky and can be made available on request.
 - Exams that don't utilize either of the two above methods should have active live proctoring (i.e. via Webex).
- 6. Webex proctoring will be used because:
 - Students are less inclined to cheat when watched by a live person.
 - Students will be instructed to focus their cameras on their hands and papers, and can be instructed to reposition the camera or show items of concern.
 - Instructors can respond to technical or administrative issues in real time.
 - Claims of technical difficulties will be testable.
 - Students will not be able to use their phone for other purposes.
- 7. **Respondus** monitoring will supplement Webex because:
 - LockDown Browser prevents the student from using the internet or other software on the same computer.
 - Monitor will record audio not available via Webex proctoring.
 - Monitor will have a video record that can be used as evidence if necessary.
 - Instructors will have multiple screens to proctor at once, while Monitor will be a dedicated camera on each student at all times.