A couple of years ago I decided to “flip” my Health Management of Animal Populations (ANSC 340) course. The course focuses on common diseases of domestic animals and measures against these diseases. Before flipping the course, I would lecture students about basic animal health management and then I would go through the various families of diseases—bacterial, fungal, parasitic, and so on—and how the principles we learned applied to these specific diseases. The course was fine, but predictably, students became bored by the seemingly endless parade of diseases. Furthermore, students never had the chance to apply what they were learning in meaningful ways or to be challenged by the real-world applications of their learning. When I challenged students with case examples on exams they were ill-prepared to handle them. And, quite frankly, I grew tired lecturing all of the time. During my second year teaching, I heard about “flipping.” The idea sounded perfect for this course. Students would learn the basic material on their own before class and we would work through activities, cases, and discussions together during class time. Now, after two semesters of flipping this course, I share with you what I have learned so far:

1. It took more time than I had planned
I naively thought that since I had previously written my lectures, I would simply record them and post them to ELMS and then think of some things to do in class. I had allotted myself three weeks to flip my course. In reality, planning a meaningful experience for the students took much, much longer. As a result, some of my class sessions were not as useful as they could have been. 
Lesson: A more reasonable time-frame for flipping a course would be six months to a year, depending on your work load, existing resources for pre-class work, and your own creativity and drive.

2. I tried to do it alone
I could have avoided many of the mistakes I made if I had shared my ideas with others who had experience with flipping. I have since come to rely on the advice, ideas, support, and constructive criticism of colleagues as I work to improve my courses.
Lesson: Talk to people who have flipped their courses for ideas, critiques and support. There are many people here on campus who have flipped all or parts of their courses. Additionally, numerous instructors have shared their experiences online.

3. I don’t speak well on camera
I was really surprised to learn how utterly boring I was when I recorded lectures. I have always been a fairly dynamic speaker in person; however, no matter how many times I practiced, I just couldn’t put together engaging narrated lectures.
Lesson: Use free and easy to use on-line resources to supplement your pre-class material from such websites as Youtube, Coursera, TED Talks, the Kahn academy etc. The variety of instruction and the professional production can enhance your students’ learning experiences.
4. Many types of pre-class preparation
Many of the descriptions about flipped courses focus on creating or finding videos for students to watch prior to class. While it is very helpful to them to watch a presentation and take notes at their own pace, lectures prior are no more engaging than they are during class. **Lesson:** Not all pre-class work has to be video viewing. Increasingly, my pre-class materials consist of a combination of short readings, short video clips, self-assessment quizzes, or “research on your own” assignments to provide variety.

5. Long videos and reading assignments can be overwhelming
In some ways, it may be harder for students to watch 45 minutes video at home than to sit the same length lecture. Students easily become bored or distracted when watching long video segments, leading them to skip parts of it. **Lesson:** When you use videos as part of your pre-class assignments, either have students watch several short video segments or create a series of questions or an outline that students should complete to help them move through the material. Limit your total video length to no more than 45 minutes.

6. Some students may resist
Not all students have taken a flipped class. And even those that have may see this method of teaching as “too much work,” or “a way for the professor to make us do everything ourselves,” as two of my evaluations from the first year of my flipped course read. **Lesson:** Spend some time at the beginning of the semester to explain the class structure and the reasons for it. Research has shown that when students understand why you teach a certain way they become more engaged in the process.

7. Students may be confused
Students need to understand that the purpose of covering the basics of a topic prior to class is to be able to work with that information in more complex ways during class time with your expert guidance. I had a couple of students who did not attend class because they thought they were completing all of their work on-line! **Lesson:** As with lesson 6, help students understand how flipped classes work so that they can work with you effectively during class time. I actually feel that I teach more now that I lecture less, but I have to communicate this to my students early and prove it to them throughout the semester.

8. Allow for sufficient pre-class preparation time
The first year I flipped my course, I set all of my pre-class quizzes to be due half an hour before class thinking that even if I didn’t grade them all before class, I could at least glance through them right before class. I failed to factor in traffic on my commute from Annapolis to UMD, and I did not leave myself time to think through their results. **Lesson:** Leave yourself time to read and think about your students’ pre-class learning assessments. Now, I make my pre-class quizzes due at 5pm the night before a flipped class. I can read them over for about half an hour in the evening or before leaving for work and think through areas that I might need to re-teach or review in class.

9. It can be a challenge to plan class activities
For some of my class sessions, I really struggled to come up with something to do in class. For me, it could be overwhelming to pick just one or two things to work on, and so I would sometimes try to do too much with too little time. **Lesson:** Create a solid syllabus built around clear learning objectives to guide you in creating meaningful classroom activities. Talk to others for ideas and examples.

10. Not every single class session has to be flipped
I really enjoy using the flipped model, but I find that there are some topics that are too complex to be covered in a pre-class video. At times it is better to be in the room with the students answering questions and re-teaching confusing points as needed. It is perfectly alright to have a course that is a hybrid of flipped classes and other teaching methods. **Lesson:** Use the mix of flipped class sessions and other teaching models that allow you to teach effectively and your students to meet your learning objectives. Flipping is not an all-or-nothing experience.