Flipping a Student Research Course during COVID-19: Lessons Learned During the First Run

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The Courses

Students accepted to OSCAR's Undergraduate Research Scholars Program (URSP) are required to take UNIV 495 or UNIV 496 to meet three broad goals

- Fulfill the student learning outcomes for research intensive courses
- Build a cohort of undergraduate researchers across campus
- Understand the breadth of scholarship at Mason

Students take UNIV 495 if they are first time URSP students with limited research experience

Prior to the revision, students took UNIV 496, the continuation course, only if they had taken UNIV 495 or attended the OSCAR Summer Seminar Series.







Reasons for revising UNIV 495

- Students who had prior research experience often didn't need basic instruction on research ethics, writing a poster, or navigating the mentor-mentee relationship that is presented in UNIV 495.
- Informal student feedback indicated that students wanted the course to be more obviously relevant to what they were doing.
- With the switch to online instruction during spring 2020, and the fall 2020 course being taught online, the course had to be further revised to work in as a mainly asynchronous online course.







Preparation for revising the courses

- I attended the Stearns Center Course Redesign Academy in January 2020 and the Facilitating Entering Research Workshop, in February 2019, hosted by the National Research Mentoring Network, to design the flipped course.
- I attended the Online Teaching Strategies course to better switch UNIV 495 to asynchronous online course for fall 2020.
- I moved OSCAR Summer Seminar Series online in summer 2020.

Lessons learned spring and summer 2020

- Some flipped topics have to be revised to work in an online course.
- Working in the online environment makes it harder to build community among the students.
- Seminars must be deliberately designed to be interactive.







UNIV 495 and 496 Revisions for Fall 2020

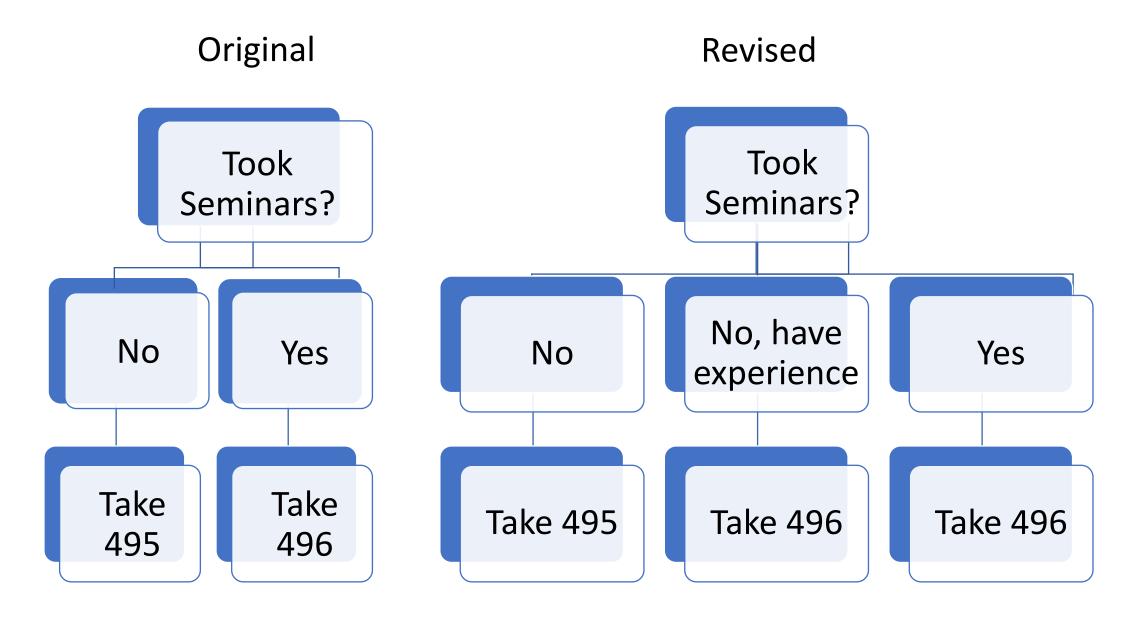
- Students with significant research or research intensive coursework outside of OSCAR were enrolled in UNIV 496 instead of UNIV 495 on a case by case basis.
- 2. Selected topics in UNIV 495 were flipped so that the emphasis in class was on discussion and the students' own projects.
- 3. In fall 2020 UNIV 495 and UNIV 496 were planned as asynchronous online courses requiring additional revisions
 - 1. Discussion board posts and replies required
 - 2. UNIV 495 and 496 students will meet together on zoom
 - 3. UNIV 495 is and 496 organized as a series of modules
 - 1. Each includes a seminar based on the OSCAR Summer Seminar Series and an associate assignment
 - 2. Students are required to attend a minimum of 5 seminars of their choosing, rather than meeting as a class every week.





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Changes in Enrollment



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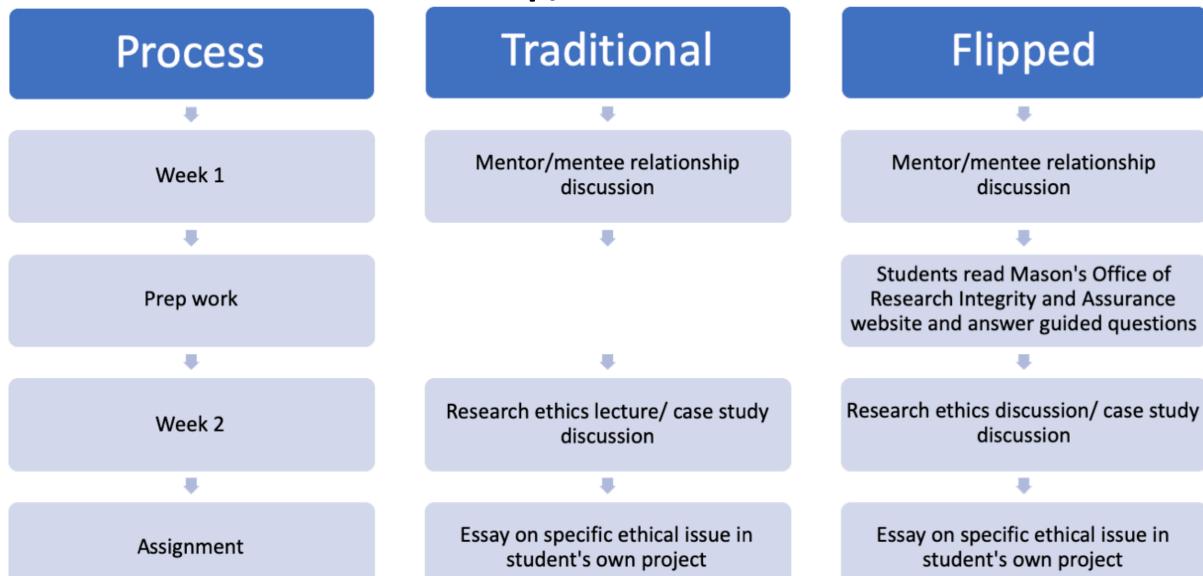
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Example of a Flipped Unit Mentor Mentee Relationship/Research Ethics



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Conclusions/Future Directions

- 1. Assessment of fall 2020 UNIV 495 and 496 students will ask specific questions about the online format, flipped topics, and modular organization.
- 2. UNIV 496 and 496 will continue to be revised based on formal and informal feedback from students and their faculty mentors.
- The OSCAR Seminar Series will continue to be expanded to include more topics and be more widely advertised.
- 4. I would love to talk about how to improve the courses and the seminar series.
- 5. Please contact me, Karen Lee at klee57@gmu.edu.







Thank you

Thank you to the faculty and staff at the Stearns Center, who run the Course Redesign Academy, and provided access to Wiley's Online Teaching Strategies Course, and to the facilitators at the Facilitating Entering Research Workshop. They all gave me advice and the space to work out some of the ideas for the flipped class. Thank you to the students and faculty who provide me with ideas and allowed me to revise the courses and seminars, often in real time, and to my colleagues in the OSCAR/Undergraduate Education Office who are happy to listen and critique my ideas for how to improve the classes.





