

Abstract Submitted
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Teaching undergraduate fluid mechanics during pandemic and lockdown. GHANEM OWEIS, American University of Beirut, OWEIS TEAM — Imagine that you are trying to teach introductory fluid mechanics in a pandemic. OK, we've been there and done that. Now imagine, that you are in country in the middle of governmental and financial collapse. On top, electricity cuts are a daily regular, and the internet supply is unreliable. How do you carry out undergraduate fluid mechanics instruction, and learning assessment in an effective manner knowing that students are strongly driven by GPA numbers and exam grades? The one question that this instructor formulated in response: is there a way to make sure that all students graduate this course and have a good handle on the basics of fluid mechanics? The answer was to teach by using take-home kitchen experiments that can be done with household items available during lockdown. For each of the four or five basic concepts/chapters, a project was assigned. To analyze their acquired data, students needed to develop a working level understanding of the recorded lectures posted on YouTube. The deliverables consisted of technical reports, videos, and/or data appendices. The experience has been very positive as measured by the unprecedented, high level of discussions and questions throughout the semester.

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