## Abstract Submitted for the NES18 Meeting of The American Physical Society

The Physics of Living in Space CHARLES HOLBROW, MIT/Colgate U. — I will outline a short course in physics that uses living in space as a context for understanding Newton's laws of motion. With these and his Law of Universal Gravitation students can understand rocketry, orbits, interplanetary travel, the creation of large orbiting space habitats, and how to produce pseudogravity in them. The course is offered as part of the public outreach of the school system of Lexington, MA. I will show a way to inroduce Newton's laws in terms of momentum and its time-rate-of-change that avoids the apparent circularity of many treatments of dynamics.

Charles Holbrow MIT/Colgate U.

Date submitted: 07 Mar 2018 Electronic form version 1.4