

Across the Cosmos September 2024: How to Live on Mars (and not Die)

This month's column is provided by my PSI colleague, Dr. Nicholas Castle, who teaches a class on Mars (well, not ON Mars, but rather ABOUT Mars...) He writes:

Greetings space enthusiasts and future astronauts! I hear that you're interested in Mars? Well, I've got news for you recruits - Mars is a blood-thirsty hellscape just waiting for the victims to start rolling in. You think the sea is cruel or the Moon is a harsh mistress? Wait until you try walking across a frozen dune field in the Martian night surrounded by toxic gas so cold that it freezes onto the ground in the winter and so thin that you'd think it was a vacuum if it were on Earth. And you'll only get to that if you survive the trip there! Let me tell you, Hohmann transfer orbits are not for the faint of heart. Still interested? Alright, you gluttons for punishment, there are a few things that you should know if you're going to survive on the Red Planet.

What is "How to Live on Mars (and not die)?" It's a science leisure course, intended for anyone with at least a high school education. The goal is to have some fun talking about Mars, from the perspectives of planetary science, spacecraft engineering, and the history of spaceflight. We welcome scientists, authors, lawyers, medical doctors, and enthusiasts of all sorts. We won't be doing much math, but we will be talking about the challenges that would face us if we wanted to not just visit, but to actually live on the Red Planet.

The course is scheduled to last for four weeks, and has been designed to maximize engagement. Participants will have access to a Discord community for discussions between the classes. Classes take place remotely on Zoom, and are intended to be collaborative discussions more than lectures. I will present a subject for about an hour each week before facilitating an open discussion with the class. The current schedule is from 1:00pm Eastern (10:00am Pacific / 6:00pm London) to 2:30pm each Saturday in October, with an extra half-hour before class for open conversation. Tuition is \$100 USD, but please contact me (through Eventbrite) if finances are an issue. Class size is limited to 16 to maximize participation.

Each week will focus on a different subject, building towards a view of what a future settlement on Mars might look like.

Week 1: Mars is Definitely Going to Kill You: the How and the Why

Week 2: Why Should We Go to Mars Anyway?

Week 3: How Do We Explore Mars, and How Could We Live There?

Week 4: How Do We Prepare for Mars?

The event is facilitated through Eventbrite, an online event organization platform. The website is

<https://www.eventbrite.com/e/how-to-live-on-mars-and-not-die-tickets-969885964027>

For more information about Nick, please check out his PSI Staff Page!¹

¹ <https://www.psi.edu/staff/profile/nicholas-castle/>

Until next month,

Grace

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