



LIFE BEYOND

Imagining our Future in Space

EDUCATOR'S GUIDE



INTRODUCTION

Thank you for taking an interest in allowing this course to be implemented in your establishment.

ABOUT THIS COURSE

The Life Beyond project is a project to engage the prison population in the design of settlements beyond the Earth. It leads a participant through the design of a station on another planet. The end result is that **the participant can submit these designs and other creative artwork from the project for publication** by the Life Beyond team at the University of Edinburgh.

They don't need to be a designer, engineer, artist or have knowledge of space exploration to take part. The project was designed to bring the thrill of space exploration and settlement to participants, to release their creative talents, and to allow them to contribute to global efforts to explore and settle space in a very real way.

There are **two versions** of the Life Beyond project: the **Full Course** and the **Short Activities** pack.

The **Full Life Beyond Course** is a four-module course, which can be done over **two to three months**. It guides the student through the design of a home on another planet, such as Mars, in the form of writing, art, drawings or any other creative medium. At their discretion, the material can be sent to us as part of the project's growing portfolio of prisoner's work on space settlement, to be published by the Life Beyond project team at The University of Edinburgh.

The **Short Activities Pack** is made up of **five short stand-alone activities**, each one of which can be done in a single afternoon and do not require reading any of the other material. They include an activity to contribute to a **Lunar and Martian Cookbook**. Participants can do all of them, just one, or pick and choose which ones they would like to do. We have also produced a hands-on activity that involves doing some **origami** (paper folding) linked to space exploration. If your participants have access to some paper, they might enjoy doing this activity. It can be found at the end of the Full Course pack.



Participants are not limited to the activities set out in the course materials. They are free to submit any creative work related to the project that they develop. We welcome all submissions including art, short stories, poems, music etc. **If you would like a hard copy of this course material – either the Full Course book or the Short Activities – please contact the Life Beyond team in the 'Where to Send Materials' section below.**

© University of Edinburgh/Scottish Prison Service/Fife College/Life Beyond Project. 2021. NOTE: These materials are subject to copyright and are provided solely for the purposes hereinbefore mentioned. You may not use or reproduce the materials other than for the purposes of your own private study or as expressly authorised by the copyright owner(s). You are not authorised to provide access to the materials by any third party, or to enable any such third party to access the materials. These materials contain artwork produced by participants in the *Life Beyond* course. These are reproduced from two books published by the participants: *Life Beyond: From Prison to Mars* and *Life Beyond: From Prison to the Moon*, published by the British Interplanetary Society.

Life Beyond: Imagining Our Future In Space

ORIGIN OF THE LIFE BEYOND PROJECT

The Life Beyond course was started in 2016 as a partnership between the **University of Edinburgh**, the **Scottish Prison Service** and **Fife College** by **Professor Charles Cockell** at the University of Edinburgh. The project emerged by bringing together prisoners in Scottish prisons to imagine the future of society beyond the Earth. So far, participants have written two books (**Life Beyond: From Prison to Mars** and **Life Beyond: From Prison to the Moon**). These books were published by the **British Interplanetary Society** (a registered charity) and sold at near cost price, with the small residual profit going to support space education projects run by the society. Prisoners taking part have won **Koestler Arts awards** for their work, and the project was cited as an example of best practice across European prisons in the **EuroPris report**.

Moon Station designed by participants at HMP Glenochil in Scotland. This gives you some idea of what a station on the Moon could look like and the sorts of material that some participants can produce.



RUNNING THE COURSE

The project has been developed to be run in any prison as a **self-study course** that can be undertaken by any individual. However, if you find that there is interest, small groups of participants can be brought together to work on the project collectively. For example, you could have different groups design different parts of a planetary station, or they could just come together to share their work and talk about it. The project has a high degree of flexibility for an educator to develop the material for collective learning if that is of interest. Just as an example, at **HMP Glenochil**, we ran a prison-wide creative writing competition for participants to write their first email from Mars. You could run such an activity.

The learning outcomes of the course are varied and range from **improving literacy skills** to **learning science**. At the end of this document, you can find some questions and answers that we anticipate participants to ask about why they would want to do this course.

There are several levels of formality in implementing this course. Participants can do it as a stand-alone course with no further follow-up. However, the preferred outcome is that participants do the course and send their designs, writing, poems or other outputs to us at the University of Edinburgh. We collect these materials and will publish them on-line and potentially in a book. **This way, we assemble a gallery of creative material to showcase prisoners' work in imagining the human future beyond Earth.**

Life Beyond: Imagining Our Future In Space

WHERE TO SEND MATERIALS

Throughout the modules, some activities and sub-activities are marked up with an envelope icon. These are drawings, writing activities and other work that you can send to us if the participant is interested in showcasing their work as part of our programme. When you have participants' materials you can send them to us, either as hard copy or electronically to: **Life Beyond, c/o Charles Cockell, Room 1502, School of Physics and Astronomy, James Clerk Maxwell Building, University of Edinburgh, Edinburgh EH9 3FD, UK.** Email: contact@astrobiology.ac.uk

You can contact us if you would like hard copies of the course materials.

YOUR QUESTIONS ANSWERED

HOW LONG DOES IT TAKE?

There are **two versions** of the Life Beyond project: the Full Course and the Short Activities pack.

The **Full Life Beyond Course** contains four modules and can be completed over **two to three months**.

The **Short Activities pack** contains **five short activities**, each of which can be done in a single afternoon and do not require reading any of the other material.

DO PARTICIPANTS HAVE TO BE REALLY INTO SPACE EXPLORATION?

No! Some participants had no previous interest in space exploration at all. **In this course, there are huge opportunities for art, creative writing, music, poetry etc.** One group of participants wrote Martian Blues music! Participants do need to have a little enthusiasm for space exploration, because that's what this course is about. It's unlikely to engage them if they have no interest at all, but this course is about creative expression and ideas.



Holiday poster for Mars designed by a participant of *Life Beyond* at HMP Glenochil in Scotland. Here participants show their creativity in imagining how they will entice people to come to Mars, in this case with the promise of exploration, sports, and adventure trips to volcanoes. This is an illustration of how the project can allow participants the opportunity to develop their creative skills in the context of the exploration of space.

Life Beyond: Imagining Our Future In Space

CAN A PARTICIPANT DO THIS ON THEIR OWN?

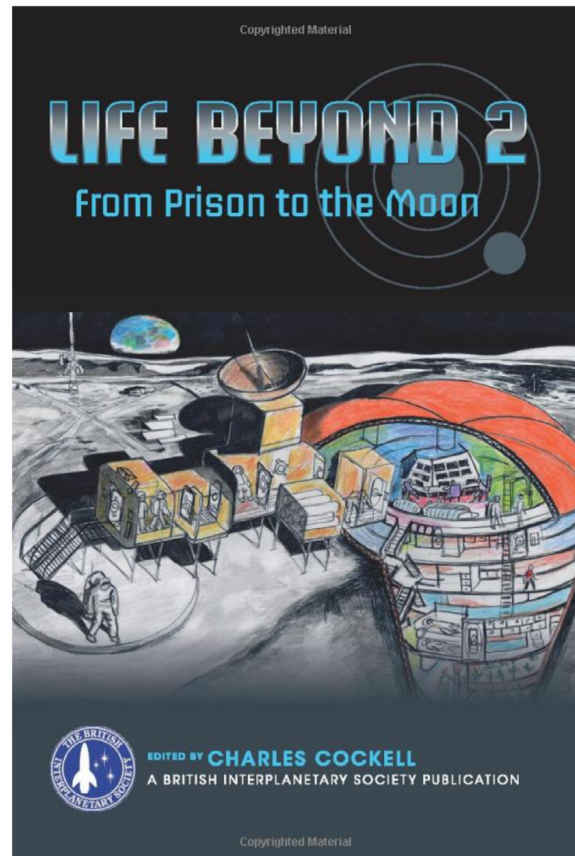
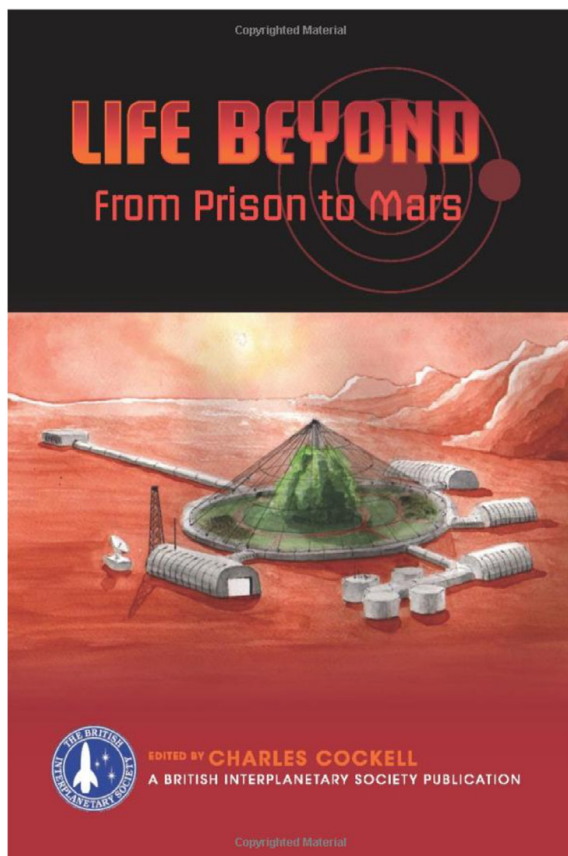
The **Life Beyond project** is a stand-alone project that a participant can complete as an individual, or with others in your institution if you have a learning centre that can bring interested participants together.

ARE THERE OTHER RELATED MATERIALS AND ARTICLES?

There are many materials on-line that you could download or print if participants want some more information. A search for 'Moon station' or 'Mars station' in **Google** will reveal a variety of articles. A good, easily read summary of a Moon base can be found [here](#).

There are also many videos on **YouTube** about exploring and settling the Moon and Mars which you could watch if that facility is available.

Finally, of course, there are the books produced by previous participants of the Life Beyond course ([Life Beyond: From Prison to Mars](#) and [Life Beyond: From Prison to the Moon](#))



Life Beyond: Imagining Our Future In Space

WHAT'S IN IT FOR PARTICIPANTS?

This project will take participants through the **design of a station in space**. Their ideas, whether they be drawings, writing or any other form of creativity, will be published as part of a Life Beyond project, either in a book or on-line, allowing them to **contribute to a global effort** to design stations for the human settlement of space.

In the process, participants will **learn some interesting things about art, science, design, creative writing** and, of course, the settlement of space.

As well as seeing their work **published**, the Life Beyond project can also give participants an opportunity to create things that can be **submitted to competitions**. Our participants have submitted work to Koestler Arts and **won awards** for their creativity.

ARE THERE LEARNING OUTCOMES?

This course contributes to **several learning outcomes** that participants can identify once they have completed it. These include:

- Improving **scientific knowledge**.
- Improving **literacy skills**.
- Improving **numeracy skills**.
- Improving **organisational skills** (studying, collating and analysing information).
- Engaging participants in **art projects**, including **creative writing**.
- Engaging participants in **discussions about the long-term goals of society**.
- Engaging participants in **what it takes to hold together a society**.



CAN PARTICIPANTS PROVIDE FEEDBACK?

At the end of each pack is a short **evaluation form**. We'd be really grateful if you would encourage participants to send this back with their work. It's not compulsory, but it's important for us to know what they think about this course so that we can improve it for future participants. Beyond that, many people ask us about the value of our work, and we need to be able to provide evidence that the course has been of benefit and interest to people who take it. It won't take long to complete. Of course, they should also feel free to criticise the course! **They can tell us what they don't like, so we can modify the course to make it better for the future.**

Life Beyond: Imagining Our Future In Space

FURTHER READING ABOUT THE LIFE BEYOND PROJECT

Two books produced by participants of the Life Beyond course. Both are available on Amazon with proceeds going to space education projects run by the British Interplanetary Society.

[Life Beyond: From Prison to Mars](#)

[Life Beyond: From Prison to the Moon](#)

[Blog post](#) about the project and its purpose

[Inside Time article](#) about the Life Beyond course in Scotland

[Sunday Post article](#) about the Life Beyond course in Scotland

Two papers that the Edinburgh team wrote about this project:

[Life Beyond: Planning for Mars in Prisons](#)

Charles S. Cockell

[Life Beyond—A Program to Use Astrobiology to Teach Science and Advance Space Exploration Through Prisons](#)

Charles S. Cockell, Yair Augusto Gutierrez Fosado, James Hitchen
Hanna Landenmark, Liam Perera and Teun Vissers

