

SPACE EXPLORATION AND ASTROBIOLOGY: A UNIQUE TOOL TO OPEN SPACE FOR ALL

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WHAT IS ASTROBIOLOGY?

ASTROBIOLOGY (ALSO KNOWN AS EXOBIOLOGY) IS AN INTERDISCIPLINARY FIELD OF SCIENTIFIC RESEARCH THAT SEEKS TO STUDY THE ORIGIN, EVOLUTION, DISTRIBUTION AND FUTURE OF LIFE IN THE UNIVERSE

Different academic areas converge in this field to create scientific and technical knowledge

ASTRONOMY ENGINEERING
PHYSICS CHEMISTRY
BIOLOGY GEOLOGY
ATMOSPHERIC SCIENCE



PHILOSOPHY

Contributing to make focus on questions related to human space exploration and its implications on derived potential ethical, social, and political issues

WHY ASTROBIOLOGY?

-ASTROBIOLOGY PROVIDES A BASIS FOR THE UNDERSTANDING OF OUR PLACE IN THE UNIVERSE AND IT BRINGS A SCIENTIFIC RATIONALE FOR SPACE EXPLORATION AND ITS DEVELOPMENT.

-AS AN ACADEMIC AREA IS ACTIVELY DEVELOPING EDUCATIVE PROGRAMS AT DIFFERENT LEVELS FROM THE SCHOOL CLASSROOM TO THE UNIVERSITIES, AS WELL AS MAKING THE KNOWLEDGE ABOUT SPACE AVAILABLE TO THE PUBLIC THROUGH SCIENTIFIC OUTREACH PROGRAMS AND DIVERSE ACTIVITIES.

-GIVEN ITS INTERDISCIPLINARY NATURE, ASTROBIOLOGY ALLOWS THE PARTICIPATION OF DIFFERENT ACTORS THAT THROUGH THE SYNERGY OF SEVERAL AREAS CAN SUPPORT THE CHALLENGING GLOBAL EFFORTS FOR EDUCATION, RESEARCH, AND THE DEVELOPMENT OF TECHNOLOGY IN SPACE-RELATED ACTIVITIES.

- ASTROBIOLOGY INITIATIVES ARE PART OF THE ENDEAVORS OF THE MOST IMPORTANT INTERNATIONAL SPACE AGENCIES AS ESA AND NASA, AS WELL AS DIVERSE UNIVERSITIES AROUND THE WORLD, AND DIFFERENT ASSOCIATIONS AS THE INTERNATIONAL ASTRONOMICAL UNION (IAU).

-ASTROBIOLOGY INTERSECTS OTHER SPACE RELATED AREAS AS SPACE MEDICINE, ASTRONAUTICS, SPACE ENGINEERING, AMONG OTHERS.

-ASTROBIOLOGY CAN ALSO HELP TO CREATE IN THE SOCIETY AN IMPORTANT DOUBLE ENVISION OF EARTH AND SPACE: BOTH ARE AN IMPORTANT RESOURCE THAT MUST BE PROTECTED TO PRESERVE OUR LIFE ON EARTH AND OUR LIFE-QUALITY.

-THIS ENVISION CAN BE INSCRIBED IN THE CONTEXT OF SOME OF THE SUSTAINABLE DEVELOPMENT GOALS (SDGS) PROPOSED BY THE UNITED NATIONS, AND THEY COULD BE EXTENDED BEYOND THE EARTH TO OUTER SPACE.

HOW ASTROBIOLOGY CAN CONTRIBUTE?

Science and education are fundamental pillars to widespread knowledge, which is fundamental to impulse the accessibility to space for everybody, everywhere.

Astrobiology provides a wide envision about space exploration and can be used as scaffolding to stimulate and promote space related activities. This is enhanced due to the current relevance of Astrobiology and its scope worldwide related to space, which can also provide infrastructure.

In this sense an interdisciplinary field of science as Astrobiology, can be transformed in a very valuable and unique tool for the United Nations Office for Outer Space Affairs initiative “Access to Space for All”. I encourage the creation of an special division dedicated to this area as part of UNOOSA.