

Planetary science education in a multidisciplinary environment: an alternative approach for ISU

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Abstract

The aim of the International Space University (ISU) located in Strasbourg, France, is to provide to the participants of its programs an overview of all the aspects of the space field. This also includes a basic background on Planetary Sciences.

During the Master 2012 an individual project about impact processes was done. During this project some issues regarding planetary science awareness arise and it brought to the table the need to increase its presence in the ISU programs. The conclusions may be extrapolated to other academic institutions.

1. Introduction

ISU programs have as principal targets graduate people from different backgrounds, nationalities and cultures. These programs are focused in general concepts of several subjects: engineering, sciences, policy, economy, law, humanities, management and applications. Planetary sciences are approached in several lectures including planets of the Solar System and exoplanets, Moon and Mars geology and exobiology. Nevertheless the approach to the planetary sciences could be improved with alternatives and supplements to the general lectures.

1.1 Workshops

Currently there is a lack of workshops at ISU regarding this topic. One-hour workshops may be performed using free on-line programs available in internet. Student's laptops or the computer laboratory can be used. Tools as Google Moon, Google Mars or Impact: Earth! are easy to work with and may improve the student's knowledge and ability to relate processes and outcomes in the origin and evolution of the planets.

1.2 Individual projects

Planetary sciences could have a greater presence also in individual projects. Collaboration with external institutions, such as the University of Strasbourg, has demonstrated to be an advantage in order to address the lack of laboratories and experts on this field at ISU.

1.3 Fieldtrips

The unique location of the ISU campus in Strasbourg offers an advantage to perform fieldtrips to sites of interest. Steinheim and Ries impact craters in Germany are less than a 4-hours travel by bus and provide a good overview of the impact processes and features [1]. Furthermore, the Eifel Volcanic Field, also in Germany was used in many articles as Moon-Mars analog [2] and it is easy reachable from Strasbourg. There are no doubts about the huge pedagogic value of these places.

2. Conclusion

Several improvements may be done at the International Space University in order to provide to its students of a complete overview of the importance of the planetary sciences for the space community. Workshops, individual projects and fieldtrips may complement the lectures that already are taken place.

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References

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