CHALLENGES TOWARDS TRANSDISCIPLINARY APPROACHES FOR TEACHING ASTROBIOLOGY. I. G. Paulino-Lima. Department of Physics and Astronomy, Open University, UK.

Introduction: Astrobiology is a new scientific endeavor that brings together a large number of different disciplines, such as the geology of the oldest rocks on Earth, biochemistry of the earliest life, microbiology of the hardiest terrestrial life forms, the planetary science of Earth's developing environment and the astrophysics of stars and extrasolar planet detection. It offers the scientific community two important possibilities. First, an opportunity to galvanize diverse scientific disciplines to answer fundamental questions about the relationship between life and the cosmic environment and, second, a chance to create a new environment conducive to transdisciplinary thinking. This is in contrast to the general trend that occurred during the 20th century towards increasing specialization in the sciences. During the 21st century astrobiology has the potential to open rich and productive seams of research [1]. In this contribution, we identify the major challenges for a really transdiciplinary approach and address some strategies to overcome these challenges. In addition, recommendations are made for astrobiology to serve as an alternative model for teaching science and engineering at all levels of education including primary, secondary, undergraduate and graduate students [2]. In this contribution, the major challenges towards a transdisciplinary approach for teaching astrobiology will be identified and strategies to overcome thes challenges will be proposed.

References: [1] Cockell, C. S. (2002) *Space Policy*, 18, 263-266. [2] Staley, J.T. (2003) *Curr. Opin. Biotech*., 14, 347-354.