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Exoplanet Curriculum at the International Space University

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Rapidly-expanding knowledge of exoplanets is providing a huge opportunity for education at all levels. In addition to the intrinsic scientific interest of finding other planetary systems and developing testable hypotheses about stellar evolution, based for the first time in history on more than one example, there is the prospect of finding habitats for other life. Even if actual life signatures cannot yet be unambiguously detected, just a credible possibility is enough to catalyze new discussions and stimulate new ideas emerging from the rich background of science fiction and the ancient concept of a plurality of inhabited worlds. At the International Space University, a graduate-level institution devoted to identifying, informing and encouraging young professionals from throughout the world, this exploding new field of science provides a grand opportunity for seminars and other activities engaging students in creative thinking about the vast human implications of a populated cosmos. Once a planet's existence and orbit are confirmed by long-continued observations, it may be a suitable object for spectrometry and other techniques to begin finding characteristics of its interior, atmosphere, magnetosphere, possibly even oceans. These observations require not only very advanced instrumentation and data methods but also patience and skill in operations both on Earth and in space. They can serve as an organizing principle for education across all of the specialties represented at ISU. In this paper we discuss the ISU curriculum, focusing on those parts of it that can benefit from the interdisciplinary expansion enabled by exoplanet discoveries.