

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
In Orbit: Postgraduate Space Education (4)

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PIONEERING SPACE EDUCATION AT THE POSTGRADUATE LEVEL - THE CASE OF
UNIVERSITY OF NORTH DAKOTA

Abstract

The Department of Space Studies at the University of North Dakota (UND) has extensive experience as a pioneer and leader in space education at the postgraduate level. The department was established in 1986, inspired by the vision and ideas of Buzz Aldrin, NASA astronaut and member of the Apollo XI mission to the moon. The first group of Master's program students was admitted in 1987. Since then, the University of North Dakota's postgraduate program has developed an innovative and unique interdisciplinary approach to space studies. The program integrates space and life sciences, technology, engineering, law, policy, economics, history, international relations, military, human centered design and human factors, with a focus on space exploration and development. Besides its unique, integrated, multidisciplinary curriculum in space studies, the Department of Space Studies is also a pioneer postgraduate program in online format offering all its courses through both traditional campus classes as well as online methods attracting high-quality part-time students since 1990. Furthermore, in fall 2012, the 25th anniversary year of the department, a Ph.D. program in Aerospace Sciences was established in collaboration with the Department of Aviation. This consolidated a unique space program that includes a minor, a master's degree, a PhD degree, space labs, habitat and simulators, NASA programs and a close collaboration with the space industry. This presentation describes and analyzes the UND pioneer and innovative postgraduate space education program, which has been taught since 1987 and is the first and leading program of its kind in the world. The primary objective of this research is to examine the program's evolution and its unique characteristics. To do so, the presentation examines the mission of the department, the historical evolution, the unique interdisciplinary approach, the innovative distance education format, the major pedagogical strategies, the pedagogical offers, and the general impact of the postgraduate program on the space industry. The result is a comprehensive examination of the role of the UND postgraduate

program as a pioneer in space education programs worldwide.