

For Immediate Release



AUB Architecture Student Projects Interest the International Aerospace Research Community

A challenge to construct sustainable life on Mars inspires students about better life on earth

Beirut, Lebanon- 26/2/2016- The American University of Beirut has established a long-term collaboration partnership with the Harvard Business School Aerospace Alumni Group (HBSAAG), a leading aerospace association that focuses on Civil Aviation, Defense and Security, Space Exploration and Satellites. As a result, the AUB Department of Architecture and Design in the Faculty of Engineering and Architecture offered its first course on the architectural design of functional, affordable, space-efficient, climate-friendly, and sustainable human shelter on the “Red Planet” Mars. The original work of students proposed practical solutions for living in harsh conditions, applicable to life on earth today and in the future.

Third and fourth year Architecture students have embarked on a course called “The Mars Studio” with the challenge to design shelters and colonies that sustain on the planet Mars, a subject of interest and exploration by space agencies and private sectors globally. The course is a starting point to establishing at AUB the first academic aerospace research platform in the region, offering useful material to the aerospace community which is expected to be engaged in the design and funding of implementing the proposals.

The students have already presented their first sketches, modules, and innovative proposals to develop structures that would require less energy and are sustainable in themselves. Motion, material, time, and space interact in the students’ modules; pendulums, inflatable structures, scissor structures, dismantled shell interiors, and cargo and rocket fragments are all exploited for the best use of space and material.

Students are now able to use their newly gained experience to arrive at original proposals for sustainable, better housing for all, on Earth. Associate Professor Dr. Karim Najjar who teaches this course, also works on developing high-performance, affordable, space-efficient, climate-responsive, sustainable structures for refugees.

“[The two projects] are very similar because they have to be really efficient and deployable and use natural resources because all the related industries are lacking. This makes what we do here very applicable,” he said.

This creative approach challenged students to come up with ideas and modules for shelters that are sustainable in all conditions, deployable, efficient, and made of economically and climactically affordable material. The processes of carrying the material through space, or possibly manufacturing it on Mars, then building suitable shelters and sustaining them, all in a world different to ours put all the principles of design and architecture into play.

“Looking into the relationship of space, functions, and efficiency will train our students to be very good architects who can respond to all conditions,” said Dr. Najjar. “This is what architects should do: To be able to respond to certain conditions and problematics and come with innovative solutions.”

Students have been enthusiastic about the innovative new approach and can see how it will be useful, even if their designs never actually reach our nearest planetary neighbor. But then again, who knows what the future could hold?

“When I first took the course, I thought it was more about applying architectural design principles on earth,” said fourth year student Mohamed Nahle. “But now, after the ‘intimidating’ knowledge I received here, ... I am starting to hope this will work on Mars.”

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Note to Editors

About AUB

Founded in 1866, the American University of Beirut bases its educational philosophy, standards, and practices on the American liberal arts model of higher education. A teaching-centered research university, AUB has more than 700 full-time faculty members and a student body of about 8,500 students. AUB currently offers more than 130 programs leading to bachelor’s, master’s, MD, and PhD degrees. It provides medical education and training to students from throughout the region at its Medical Center that includes a full-service 420-bed hospital.

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