# COURSE DETAIL

| SPACE ROBOTICS |
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| **Country**<br>Germany |
| **Host Institution**<br>Technical University Berlin |
| **Program(s)**<br>Technical University Summer |
| **UCEAP Course Level**<br>Upper Division |
| **UCEAP Subject Area(s)**<br>Mechanical Engineering Electrical Engineering Computer Science |
| **UCEAP Course Number**<br>121 |
| **UCEAP Course Suffix** |
| **UCEAP Official Title**<br>SPACE ROBOTICS |
| **UCEAP Transcript Title**<br>SPACE ROBOTICS |
| **UCEAP Quarter Units**<br>6.00 |
| **UCEAP Semester Units**<br>4.00 |

**Course Description**
In this course students acquire knowledge of the most important topics related to space robotics and planetary exploration. Course participants learn the parts of a space rover system and understand their correlations. In addition, they are able to plan and conduct a planetary exploration mission. Students are taught how to design a part of a rover system with regard to mechanics, electronics, and programming. The course starts with introductory lectures about the most important topics related to space rover technologies and planetary exploration. In parallel, a practical training is given to develop specific engineering skills in mechanics, electronics, and programming that are necessary to conduct the hands-on project. During project work units, parts of a rover are designed with supervision in smaller groups. In a mission scenario on a test-bed, the rover is operated under real conditions. The course requires no specific robotics-related knowledge. Experience in programming is an advantage.

**Language(s) of Instruction**
English

**Host Institution Course Number**

**Host Institution Course Title**
SPACE ROBOTICS

**Host Institution Campus**
TUBS

**Host Institution Faculty**

**Host Institution Degree**

**Host Institution Department**

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