综合写作

In the lecture, the professor is skeptical about the idea of the reading passage that it is impossible to send humans to Mars in the coming decades. The professor, however, argues that scientists have proposed solutions to the problems the reading selection discussed, so sending humans to Mars can be realized.

First in the reading passage, it is pointed out that there is no space to put on board the essentials required by a crew for a round-trip to Mars and back. On the contrary, the professor maintains that with hydroponics, these problems can be solved. Hydroponics makes astronauts able to cultivate food crops in the spacecraft. Meanwhile, the plant cultivated could release clean water vapor, which can be collected as drinking water and turn carbon dioxide into oxygen. Therefore, with the help of this technique, the spaceship has the ability to offer the essentials.

Second, the professor then challenges the reading’s idea that stay in the zero-gravity environment for a long time will be harmful to human body. She suggests that with the experience of the last few decades, astronauts have learned to use several techniques to safely manage the effects of zero gravity. For instance, the decreasing in muscle mass can be prevents by regular exercise. Moreover, taking vitamins and minerals like calcium is able to slows down the decrease in astronauts’ bone density. Thus, the health problem is not going to be a problem of the traveling to Mars.

Finally, the professor addresses the dangerous levels of space radiation which emitted by the sun can be prevented. Actually, the radiation will not be at dangerous levels all the time. The sun only releases the high-level radiation occasionally. To avoid this threat, the spacecraft could be equipped with special instruments that monitor solar radiation and with a small shelter that shield against radiation but doesn’t add much weight to the ship. Therefore, the radiation from the sun can be prevented from the astronauts. However, according to the reading passage it is impossible to block the radiation because the shield will be too heavy to carry.

In conclusion, the mission that sending humans to Mars is possible with respect to hydroponics technology, techniques which could safely manage the effects of zero gravity and a mature way to detect and block the radiation.