Kaikai Zou, Qingyi Huang, Wengxuan Li, Xueyao Zhang, Tzipora Rakedzon & Michael Tilleman Guangdong Israel Institute of Technology michael.tilleman@gtiit.edu.cn

Keywords:

Academic Writing, Exoplanets

Learning areas:

Science

Interdisciplinary Approach to Teaching Academic Writing Courses Resulting in a Dual Academic Achievement: Linguistic and Scientific

The Academic Writing Course at Guangdong Technion Israel Institute of Technology (GTIIT) provides engineering students with the needed knowledge of writing academic reports. The course takes place in small, project-based learning (PBL) groups, introducing challenging tasks to develop critical thinking, problem-solving, and inquiry skills. During the semester-long course the students practice their acquired skills by producing technical essays, delivering presentations, and preparing a technical poster. The interdisciplinary approach is accomplished by a joint teaching effort that combines the teaching of technical reporting skills (taught by a scientist) and formal language writing (led by a senior English professor). This pedagogical process demonstrates how students can improve their linguistic abilities while advancing their scientific knowledge, and producing meaningful scientific reports.

Here we will introduce a PBL case of some exoplanet characteristics based on data published by NASA and the European Astronomical Society. Students calculated the density of the exoplanets out of the available data, producing subsequently a meaningful scientific report. Similar PBL can be used in secondary schools since the theory on which this research leans, Kepler's laws of planetary motion, is acquired at a secondary school in most countries.

To summarize, the interdisciplinary approach to teaching academic writing courses at our institute resulted in a linguistic and scientific achievement.