

Adopting OER for field-based environmental science courses: Successes and Challenges

Open educational resources (OER) can make educational resources widely available to all students and educators free. Especially during the pandemic period, more and more professional associations and institutions have embraced the OER movement by encouraging faculty and researchers to share educational materials (e.g. lesson plans) openly on their sites. However, applying OER is still untried or difficult in some academic programs and courses in higher education including field based environmental science. Numerous studies have indicated and identified the benefits of implementing OER for STEM education based on the cost reduction, student learning outcomes, and flexible pedagogical shifts. Nonetheless, challenges still remain on how to choose an appropriate, creative and effective implementation approach of OER for field-based courses where hands-on activities and sample collections are critical components of the lesson plans. This workshop will present the current state of the OER adoption and implementation on various fields of STEM education with special focus on the environmental science to provide support and direction for future course and program developments.