Quality environmental education is critical to excellence in environmental professions, both for students and professionals. This issue of EM focuses on two current challenges educators face in delivering environmental education: the ongoing need for curriculum updates, and how to educate the new generation of students.
One of the challenges faced by environmental educators is keeping course content current and relevant to industry and societal needs. The first article by Melanie Sattler focuses on trends observed in the 2019 report *Environmental Engineering for the 21st Century: Addressing Grand Challenges* published by the National Academies. Trends include:

1. Prevention preferred over treatment;
2. Climate change – a cross-cutting issue;
3. Criticality of addressing connections/nexus among problems; and

Sattler points out needed changes to current course work in order to meet these grand challenges.

The second article by David Lampert identifies new computer skills needed to handle the enormous amount of data generated daily by environmental sensors. Lampert explains and recommends training on the use of the Python Programming Language, which is now widely used in data science.

The third article in this group focuses on teaching and learning strategies for Generation Z—the generational identifier for those students just entering higher education. Zaher Hashisho and Alireza Haghhighamamaghani describe the characteristics of Generation Z (preferring technology and digital tools, pragmatic, individualistic, independent, cautious, having a short attention span, and desiring immediacy and convenience), and the authors explain changes in teaching styles that can help educators relate to these characteristics.

To quote a useful book on the science of successful learning, “The responsibility for learning rests with every individual, whereas the responsibility for education (and training, too) rests with the institutions of society.” Research in cognitive science indicates that intermittent training involving practice and reflection on the relevance of key information facilitates learning and retaining needed knowledge. The ideas in these three articles can help educators present relevant training for future environmental professionals, and they also point the way for environmental program managers to encourage lifelong education for continued professional improvement.

Reference

In Next Month’s Issue…

**Waste Management**

The focus for this issue is topics related to management of municipal, industrial, and hazardous wastes, including waste prevention, recycling, waste reuse, and energy recovery.

**New for 2020!**

This year, *EM* is expanding its content coverage of waste management issues with waste-themed articles appearing at regular intervals throughout the year as part of a “Waste Management Corner”. Look for the first article to appear in the May 2020 issue.