As the second half of the 2017–2018 academic school year gets underway, this is as good a time as any to reflect on the present and future state of U.S. environmental education.
In this month’s *EM*, we consider environmental programs with a focus on air and waste management. We touch on the coursework, field experiences, and internships related to such programs, and consider opportunities in environmental education.

In this first article, Professors Mingming Lu, Margaret Kupferle, and Tim Keener describe a comprehensive undergraduate program that incorporates the theory and practice of environmental engineering in a five-year program at the University of Cincinnati. Students participate in three to five co-op work semesters where they get real-world experience and develop valuable work relationships that can come in handy after graduation.

The authors note that, in addition to co-op work experience, an engineering design experience capstone course sequence prepares undergraduate students for engineering practice. The sequence is a combination of lecture/seminars and design labs. Students gain skill in preparing project proposals, engineering computation, experimental design, economic analysis, report writing, and oral presentation with final deliverables that include a report, poster presentation, and a final presentation to their project clients, faculty, and external engineering judges.

Inspiration and preparation for environmental practice can be nurtured before college, as exemplified in the second article by Allison Guerette, the Campus Sustainability

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**U.S. News & World Report Top-Ranked Environment/Ecology/Environmental Health Engineering Programs**

The top 10 U.S. undergraduate schools for environmental/environmental health engineering, where the highest engineering degree offered is a doctorate:

1. University of California–Berkeley, Berkeley, CA
   #1 in Environmental/Environmental Health
   #21 in National Universities (tie)

2. Georgia Institute of Technology, Atlanta, GA
   #2 in Environmental/Environmental Health
   #34 in National Universities (tie)

3. Stanford University, Stanford, CA
   #2 in Environmental/Environmental Health
   #5 in National Universities (tie)

4. University of Michigan–Ann Arbor, Ann Arbor, MI
   #2 in Environmental/Environmental Health
   #28 in National Universities

5. University of Illinois–Urbana-Champaign, Champaign, IL
   #5 in Environmental/Environmental Health
   #52 in National Universities (tie)

6. University of Texas–Austin, Austin, TX
   #5 in Environmental/Environmental Health
   #56 in National Universities (tie)

7. Massachusetts Institute of Technology, Cambridge, MA
   #7 in Environmental/Environmental Health
   #5 in National Universities (tie)

8. Carnegie Mellon University, Pittsburgh, PA
   #8 in Environmental/Environmental Health
   #25 in National Universities (tie)

9. Johns Hopkins University, Baltimore, MD
   #9 in Environmental/Environmental Health
   #11 in National Universities (tie)

10. Virginia Tech, Blacksburg, VA
    #10 in Environmental/Environmental Health
    #69 in National Universities (tie)

The top 10 global schools offering environment/ecology programs:

1. University of California–Berkeley, Berkeley, CA, USA

2. Wageningen University and Research Center, Wageningen, The Netherlands

3. Stanford University, Stanford, CA, USA

4. Swiss Federal Institute of Technology, Zurich, Switzerland

5. Harvard University, Cambridge, MA, USA

6. Duke University, Durham, NC, USA

7. University of California–Davis, Davis, CA, USA


9. (tie) University of Queensland, Brisbane, Queensland, Australia

10. University of British Columbia, Vancouver, British Columbia, Canada

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Coordinator at Phillips Academy in Andover, MA. The author describes how high-performing, green new schools and sustainable renovations promote environmental education. She explores some of the notable green school building programs, including Leadership in Energy and Environmental Design (LEED) for Schools, Collaborative of High Performance Schools, Living Building Challenge, and the U.S. Department of Education Green Ribbon Schools. These programs promote green building design, coupled with education. Guerette explains how green building features are used in whole-school Education for Sustainability (EfS). EfS focuses on innovation and design for a sustainable future with key themes that include renewable energy, reduced water consumption, reduction and diversion of waste, and local food production.

Last, but not least, I review high-school Advanced Placement Environmental Science course materials and look at somewhat atypical resources for environmental education. Specifically, does the AP coursework, available through the College Board, prepare students for college-level environmental science classes and properly introduce them to real-world practice in the field? And, what are some of the resources and techniques available to expand student understanding and appreciation of the environmental profession?

So, please take your seats with EM’s February issue. Class is now in session. em

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