In Te Grate

Interdisciplinary Teaching about Earth for a Sustainable Future



Engaging Students: Understanding Earth in the Context of Societal Issues through the InTeGrate Teaching Materials

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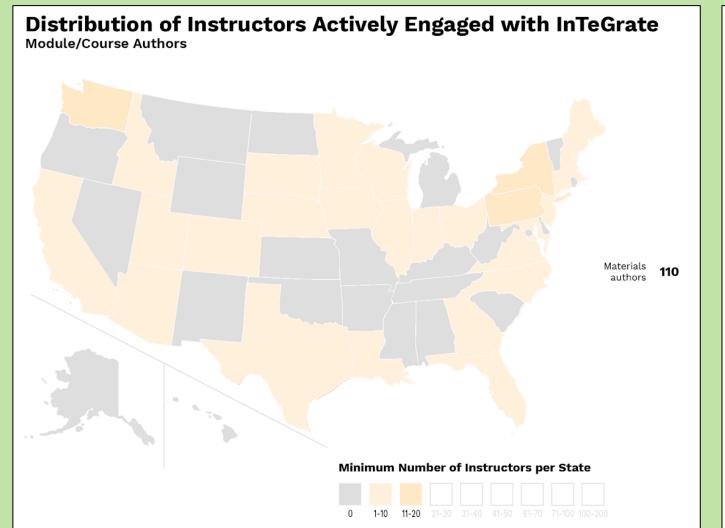
Increase Earth Literacy Across the Curriculum

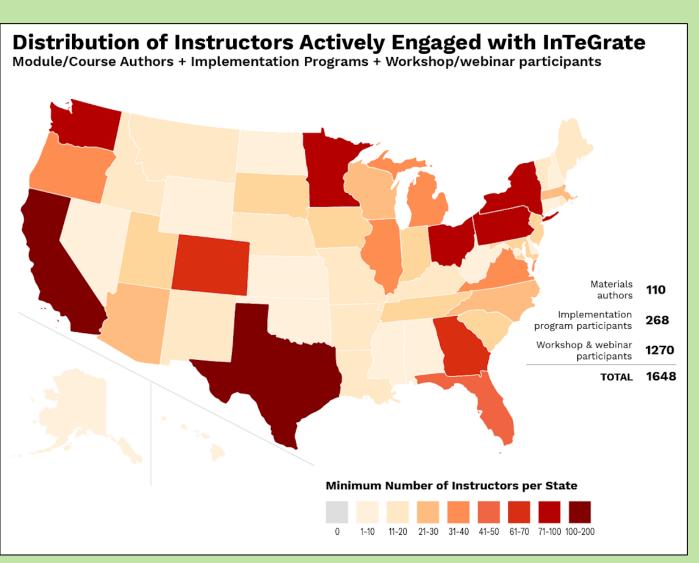
InTeGrate is a community effort that aims to increase students' Earth literacy and preparation to tackle environmental and resource issues by integrating teaching about Earth in the context of societal issues throughout the undergraduate curriculum. The effort includes the development of 26 curriculum modules and 6 courses that:

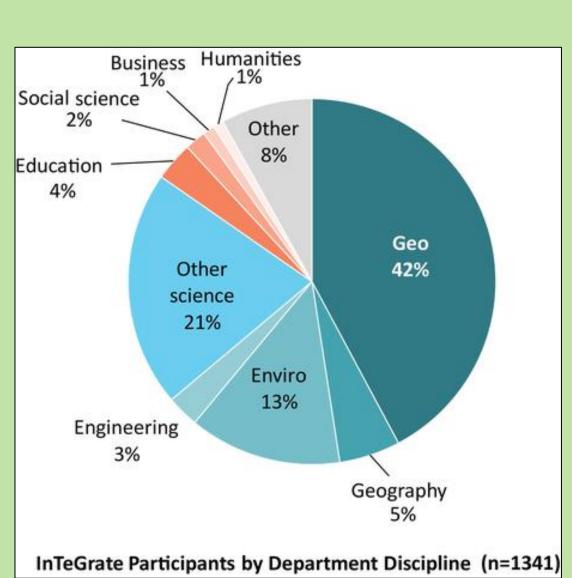
- address one or more Earth related grand challenges facing society,
- develop students' ability to address interdisciplinary problems,
- improve students' understanding of the nature and methods of geoscience and developing geoscientific habits of mind,
- make use of authentic and credible geoscience data to learn central concepts in the context of geoscience methods of inquiry, and
- incorporate systems thinking.

Author teams comprised at least three faculty members from a variety of institution types across the country who bring together a broad array of disciplinary expertise.

Designed with versatility in mind, the development process and format of the courses and modules strengthen users' ability to adopt and adapt the materials to a variety of disciplines, class sizes, course levels, and more.

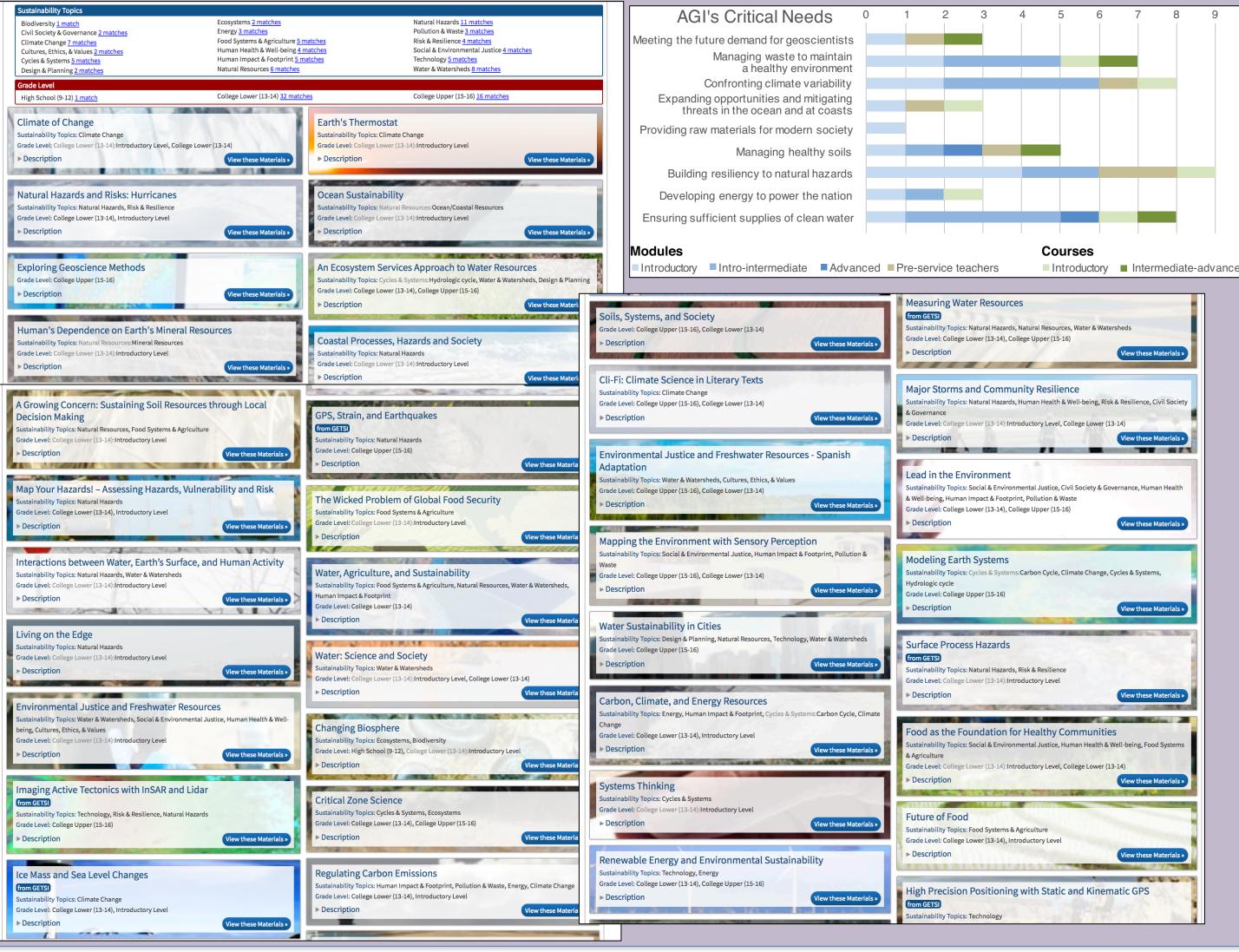






Connections with Contemporary Real-world Issues

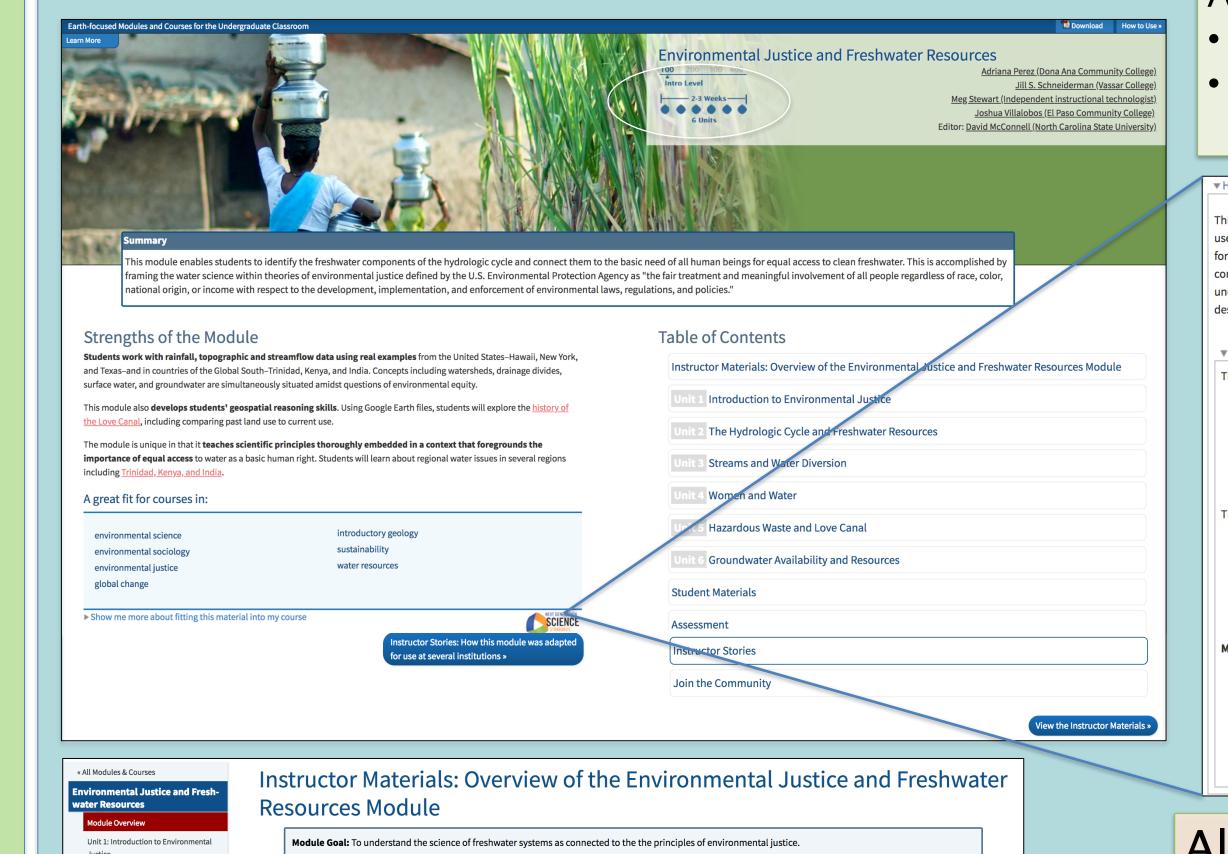
Materials focus on climate change, food security, water availability, natural resources, energy, natural hazards, environmental justice, and more. They connect students to interdisciplinary societal issues at the local, national, and global scale, tying their classroom learning to complex and systems thinking that they will utilize in the workplace and in informed decision making.



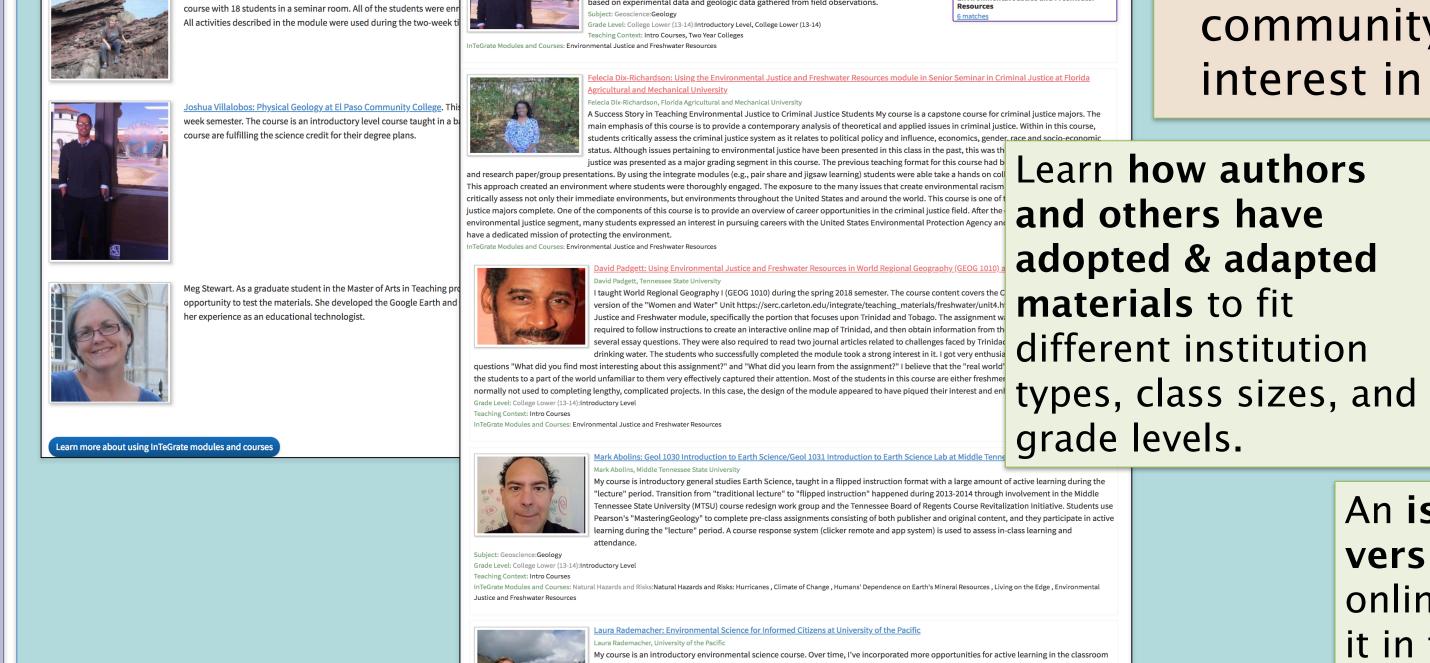
- Tackling contemporary issues, materials help students make connections with the news.
- Interdisciplinary connections highlight the importance of systems thinking and complex issues.
- Engaged pedagogies make learning active and fun and service learning and research can connect students with their community.

Ready-to-use and Easy to Adapt

InTeGrate-developed courses and modules are free, rigorously reviewed, and classroom-tested. They provide 2-12 weeks of material that can be adopted or adapted to classes in their entirety, or users can pick and choose pieces that suit their course. Materials also indicate NGSS and key literacies addressed.



The overview page provides of each unit.



nstructor Stories

At a glance, see: Grade level & module length Key literacies & NGSS addressed

 Earth is a complex system of interacting rock, water, air, and life • Earth is continuously changing. Humans depend on Earth for resources

Students will be able to connect scientific principles to human rights issue

All courses and modules feature:

- units with lesson plans, presentation materials, student handouts and resources
- an overview of the materials a set of stand-alone student
- materials formative and summative
- assessments instructor stories documenting how the authors (and others) used materials in different
- settings and contexts an opportunity to join a community of others with

An isolated student

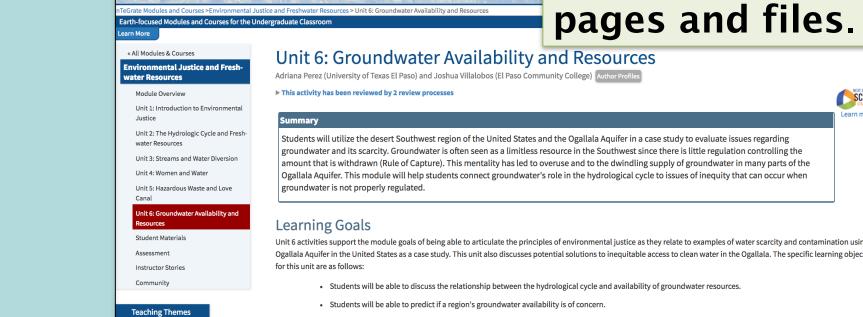
version is available

it in to your LMS via

Common Cartridge.

online or you can plug

interest in the materials.



Download a **PDF of the web**

Protected 'instructor-only' **files** provide keys and

documents.

Materials utilize engaged and

Formative and summative Describe the significance of the Ogallala Aquifer to US agriculture and explain why agricultural production is concentrated in this region of the United Stat assessments are provided for each activity and for

sensitive

active

engage

students^{1,2}

pedagogies to

the module as a

Active Learning Strategies, Journal of Geoscience Education, Vol. 65, no. 4, November 2017, pp. 604-625. 2. O'Connell, K., Bruckner, M.Z., Manduca, C.A., and Gosselin, D.C., 2015. Supporting Interdisciplinary Teaching about the Earth with the InTeGrate Website, Journal of **Environmental Studies and Sciences,** Vol. 6, no. 2, pp. 354-359.

1. McConnell, D.A., Chapman, L.,

Czajka, D.D., Jones, J.P., Ryker, K.D., and

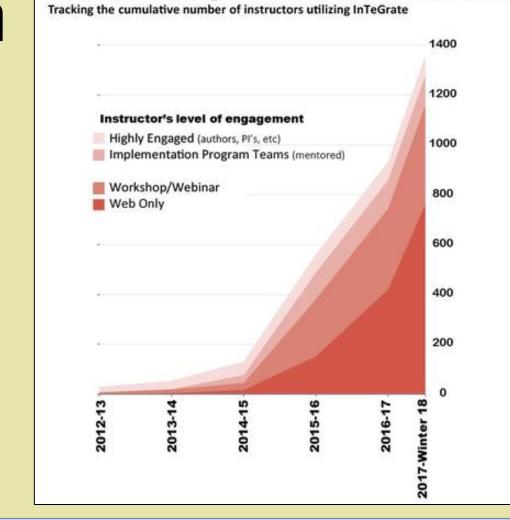
Wiggen, J., 2017. Instructional Utility

and Learning Efficacy of Common

References Cited:

Community and Reach

Materials have been used in a variety of disciplines by more than a thousand instructors, reaching more than 100,000 students around the world, and exposure is growing through time.



InTeGrate Materials in the Classroom racking the cumulative number of students exposed to InTeGrate materials Implementation Program Teams (mentored

Sharing Ideas and Experiences

Ongoing workshops and webinars highlight how instructors use the materials in their classrooms. Check out program and screencast recordings to get ideas.

