

# Integrative and Interdisciplinary Learning in Science



## Joanne L. Stewart

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Director of Integrative Studies  
in Science

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### Education:

B.A., Kalamazoo College, 1982

Ph.D., University of California, Berkeley, 1988

### Areas of expertise:

Scholarship of Teaching and Learning,  
Inorganic Chemistry

### Grants and awards:

- Carnegie Scholar, 2005-2006
- Provost's Award for Excellence in Teaching, 1996
- National Science Foundation - Research Experiences for Undergraduates, "A Collaborative Student-Faculty Research Program in Chemistry and Biochemistry," March 2003-March 2007, \$256,000.

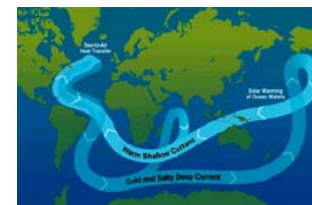
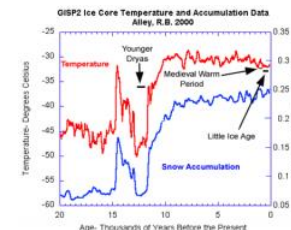
### Key publications and presentations:

- Joanne L. Stewart and Valorie L. Wilkerson\*, *ChemConnections: A Guide to Teaching with Modules*; W.W.Norton & Co.: New York, 2003.
- "Integrative learning in the sciences: Decision making at the intersection of science knowledge and student beliefs and values," BCCE, July 29-August 3, 2006.

**Acknowledgements:** Carnegie, HHMI, NSF

## Integrative Learning in Science

What do climate change, tipping points, and beliefs and values have to do with one another? These are the threads of my Carnegie project on integrative learning. Through integrative learning, educators help students put the pieces of their college experiences together in order to strengthen learning in college and beyond. As a Carnegie Scholar, I am working to define what integrative learning in the sciences is.



## The HHMI Program at Hope College: Interdisciplinary Research & Learning

I serve as Director of Integrative Studies for the Hope College Howard Hughes Medical Institute (HHMI) Program. The HHMI program emphasizes interdisciplinary science education through research and a research-integrated curriculum.



### HHMI Programs:

- Hughes Research Scholars
- Hughes Sci. Educ. Scholars
- Interdis. Curriculum Development
- Faculty Development Workshops
- Interdisciplinary Research
- Post-Doctoral Fellows
- Assessment & Dissemination