

VISION AND CHANGE and the IMPROVEMENT OF GENERAL EDUCATION LIFE SCIENCE (IGELS) COURSES

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WHY DON'T MORE STEM FACULTY IMPLEMENT VALIDATED METHODS IN THE UNDERGRADUATE CLASSROOM?

The IGELS project is in the first of three years of funding--investigating the impact, if any, of "Vision and Change" (V&C, 2009) in general education life science/biology courses across the U.S.

MAJOR GOALS OF PROJECT:

1. Surveying current GELS instructors about V&C;
2. planning customized professional development workshops;
3. expanding activities of the national IGELS network; and
4. promoting scientific literacy.

IGELS WORKING GROUPS:

- a) Faculty Professional Development
- b) Curriculum Resources
- c) Equity & Inclusive Teaching
- d) Online Presence & Networking
- e) Outcomes and Assessment

WHAT IS OUR MESSAGE TO ALL INSTRUCTIONAL FACULTY?

FOCUS ON REASONING AND RELEVANCE!

CORE COMPETENCIES FROM V&C (for students)

REASONING

1. Ability to apply the process of science
2. Ability to use quantitative reasoning
3. Ability to use modeling and simulation

RELEVANCE

1. Ability to tap into the interdisciplinary nature of science
2. Ability to communicate and collaborate with other disciplines
3. Ability to understand the relationship between science and society

IGELS MODEL OF FACULTY PROFESSIONAL DEVELOPMENT

Create a framework for general education biology courses grounded in *Vision and Change* and emphasizing Reasoning and Relevance. Identifying characteristics of a contemporary GELS instructor.

TO HELP FACULTY, WE NEED TO:

1. Help instructors decide first to make one change in their course. (The change needs to be impactful, intentional, and integrated into the entire course.)
2. Focus on scientific literacy of their students. (Ask to see our model of student-centered scientific literacy.)
3. When it comes to content, what is **ESSENTIAL** for your students, and then **KISS** (Keep it simple, stupid!)—to promote understanding and application
4. Whatever you teach—put it in context of your students' lives and interests, their community, and their futures.



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