

**Scott Lewis, Ph.D.**

Assistant Professor, Department of Chemistry  
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**Education**

5/03 to 5/06                      Ph.D., University of South Florida, Tampa, Florida, Chemistry  
8/01 to 5/03                      M.A., University of South Florida, Tampa, Florida, Chemistry  
8/97 to 5/01                      B.S., University of South Florida, Tampa, Florida, Chemical Engineering  
summa cum laude

**Professional Experience**

8/13 to ----                      Assistant Professor, University of South Florida, Chemical Education  
8/12 to 7/13                      Associate Professor, Kennesaw State University. Chemical Education  
8/06 to 8/12                      Assistant Professor, Kennesaw State University. Chemical Education

**Honors and Awards**

Freshman Chemistry Teaching Award, 2010, Kennesaw State University College of Science and Mathematics.

College Distinguished Teaching Award, 2009, Kennesaw State University College of Science and Mathematics.

Scholarship of Teaching and Learning Team Award, 2008, Kennesaw State University Center for Excellence in Teaching and Learning.

Outstanding Dissertation of the Year, 2006, University of South Florida Graduate School.

**Courses Taught**

1. Fundamentals of Chemistry I and Lab (General, Organic and Biological Chemistry)
2. General Chemistry I and lab
3. General Chemistry II
4. Peer Leading in Chemistry (Created course to train peer leaders)
5. Teaching of Specific Subject (Methods course for training high school chemistry teachers)
6. Student Teaching Supervision
7. Teaching and Assessment in Chemistry (Created course for 6-12 science teachers)

### Funded Projects

*Developing a Student Centered Assessment for General Chemistry*, Lewis, S.E., Howell, T., Orvis, J., Sauder, D., Todebush, P., National Science Foundation – Course, Curriculum, and Laboratory Improvement, \$159,450; 5/2010 – 2/2013.

*Implementing and Evaluating POGIL in High School Chemistry*, Scott Lewis, POGIL-SPUR, \$1790, 6/1/2007 – 6/1/2008.

### Refereed Journal Articles

\* denotes undergraduate students

- Mitchell, Y. D.\*, Ippolito, J.\* & Lewis, S. E. (2012). Evaluating Peer-Led Team Learning across the two semester General Chemistry sequence. *Chemistry Education Research and Practice*, 13, 378-383.
- Lewis, S.E. (2011). Retention and Reform: An Evaluation of Peer-Led Team Learning. *Journal of Chemical Education*, 88(6), 703-707.
- Lewis, S.E., Shaw, J. L. & Freeman, K. A.\* (2011). Establishing open-ended assessments: investigating the validity of creative exercises. *Chemistry Education Research and Practice*, 12, 158-166.
- Lewis, S. E.; Shaw, J. L.; & Freeman, K. A.\* (2010). Creative Exercises in General Chemistry: A Student-Centered Assessment. *Journal of College Science Teaching* 40(1), 48-53.
- Lewis, S. E., Shaw, J. L., Webster, G. H., Heitz, J. O.\* (2009). Attitude Counts: Self-Concept and Success in General Chemistry. *Journal of Chemical Education*, 48(6), 744-749.
- Shaw, J. L., Dockery, C. R., Lewis, S. E., Harris, L.\*, & Bettis, R.\* (2009). The *Trans Effect*: A Guided Inquiry Experiment for Upper-division Inorganic Chemistry. *Journal of Chemical Education*, 86(12),1416-1418.
- Rushton, G. T., Hardy, R. C.\*, Gwaltney, K. P. & Lewis, S. E. (2008). Alternative Conceptions of Organic Chemistry Topics among Senior-level Chemistry Students. *Chemistry Education Research and Practice*, 9(2), 122-130.
- Lewis, S. E. & Lewis, J. E. (2008). Seeking Effectiveness and Equity in a Large College Chemistry Course: An HLM Investigation of Peer-Led Guided Inquiry. *Journal of Research in Science Teaching*, 45(7), 794-811.
- Lewis, S. E. & Lewis, J. E. (2007). Predicting at-risk students in general chemistry: Comparing formal thought to a general achievement measure. *Chemistry Education Research and Practice*, 8(1), 32-51.
- Lewis, S. E. & Lewis, J. E. (2005). Effectiveness of a Workshop to Encourage Action: Evaluation from a Post-Workshop Survey. *Journal of Chemical Education*, 83(2), 299-304.
- Lewis, S. E. & Lewis, J. E. (2005). The Same or Not the Same: Equivalence as an Issue in Educational Research. *Journal of Chemical Education*, 82(9), 1408-1412
- Lewis, S. E., & Lewis, J. E. (2005). Departing from Lectures: An Evaluation of a Peer-Led Guided Inquiry Alternative. *Journal of Chemical Education*, 82(1), 135-139.

### Selected Conference Presentations

- Lewis, S.E. *Cluster Analysis to simplify survey results*, 22nd Biennial Conference on Chemical Education, State College, Pennsylvania, August 1, 2012.
- Lewis, S.E., Ippolito, J., Mitchell, Y. *Evaluation of Peer-Led Team Learning on progression and success within the General Chemistry sequence*, 22nd Biennial Conference on Chemical Education, State College, Pennsylvania, July 30, 2012.
- Lewis, S.E., Mitchell, Y., Ippolito, J. *Retention, reform and progression: Evaluation of Peer-Led Team Learning in General Chemistry*, ACS Southeastern Regional Meeting, Richmond, Virginia, October 28, 2011.
- Lewis, S.E., Shaw, J.L., *Evaluation of peer-led team learning and the potential of the Human Constructivist learning theory*, 240<sup>th</sup> ACS National Meeting, Boston, August 22 – 26, 2010.
- Todebush, P.M., Sauder, D.G., Lewis, S., Howell, T., Orvis, J. *Using creative exercises to address student misconception in general chemistry*, 62<sup>nd</sup> Southeastern Regional Meeting of the ACS, New Orleans, Nov 30 – Dec 4, 2010.
- Lewis, S.E., Shaw, J.L., Freeman, K.A., *Creative exercises: A student centered assessment for general chemistry*. 238th ACS National Meeting, Washington, D.C., August 20, 2009.
- Lewis, S. E.; Shaw, J. L.; Webster, G. H.; Heitz, J. O. *Relating Students' Self-concept to Chemistry Success and Investigating Methods for Improving Self-Concept*. 20<sup>th</sup> Biennial Conference in Chemical Education in Bloomington, Indiana, July 29, 2008
- Lewis, S. E. *Implementing and Evaluating POGIL Activities in High School Chemistry*. 20<sup>th</sup> Biennial Conference in Chemical Education in Bloomington, Indiana, July 29, 2008
- Lewis, S. E.; Shaw, J. L.; Heitz, J. *Relating the affective domain to retention and success in General Chemistry*. 235<sup>th</sup> ACS National Meeting in New Orleans, Louisiana, April 7, 2008.

### Professional Service at Kennesaw State University

#### **Department (Chemistry & Biochemistry):**

General Chemistry Coordinator, responsible for generating a common syllabus each semester, orienting new instructors and working with instructors on course policies and end of semester grade distributions.

Assurance of Learning committee, 8/1/06 to 8/1/12, member. Responsible for revising learning outcomes document, performing statistical analysis and generating the chemistry department assurance of learning report in 2008, 2010 and 2012

#### **College (Science & Mathematics):**

Chalk and Wire administrator for the science education disciplines (Biology, Chemistry, Biology MAT, Chemistry MAT and Physics MAT) from 2008 - 2011. Responsible for creating and modifying online assessment rubrics and for clearing erroneous data at the end of each semester. Position also requires training students in uploading procedures and providing technical assistance to students and faculty. Also responsible for generating reports to the College of Education each semester.

## **University:**

Appointed college representative to the *ad hoc* Committee on Appraising Teaching Effectiveness (8/2008 to 12/2009). Contributing to the description of multiple measures of teaching effectiveness independent of student evaluations.

Elected college representative to the Undergraduate Policies and Curriculum Committee (UPCC) (8/2009 to 5/2011). First year served as co-secretary, responsible for keeping minutes of the meetings. Second year served as co-chair, responsible for facilitating the meetings, answering faculty inquiries on committee policies and submitting paperwork to the registrar's office and filing reports with the faculty senate and provost's office.

## **Service to the Profession**

Reviewer for *Chemical Education Research and Practice*, *Journal of Chemical Education*, *Journal of College Science Teaching* and the *National Science Foundation*.

Wrote a published book review appearing in *Science Education*, 95(3), 573-575, reviewing the book:

Sadler, P. M., Sonnert, G., Tai, R. H. & Klopfenstein, K. (2010). *AP: A Critical Examination of the Advanced Placement Program*. Harvard Education Press.

American Chemical Society Georgia Local Section, 8/06 – 8/12, Chemistry Olympiad coordinator. Responsible for promoting student participation, coordinating review sessions, distributing and grading local exam, proctoring national exam.

American Chemical Society Examinations Institute, 11/27/06 – 7/27/08, 2008 Conceptual Examination Committee member. Developed, edited and revised questions for the ACS Conceptual Exam.

American Chemical Society Examinations Institute, 04/01/13 – present, 2015 Conceptual Examination Committee member.