

June 30, 2011

Curriculum Vitae (brief)

## **JOEL M. GOLDBERG**

### **I. Background**

#### A. Education

A.B. 1978, Oberlin College, Oberlin, OH  
Majors: Chemistry (with honors), Religion

Ph.D. 1982, University of Michigan, Ann Arbor, MI  
Analytical Chemistry  
Mentor: Dr. Richard Sacks

#### B. Professional

Assistant Professor of Chemistry  
University of Vermont 1982-8

Associate Professor of Chemistry  
University of Vermont 1988-*present*

Co-Coordinator/Director, Environmental Sciences Program  
College of Arts and Sciences  
University of Vermont 2003-2011

Interim Associate Dean  
College of Arts and Sciences  
University of Vermont 2004-2005

Associate Dean  
College of Arts and Sciences  
University of Vermont 2005-2011

Interim Dean  
College of Arts and Sciences  
University of Vermont 2011-*present*

#### C. Professional and Honorary Societies

- American Chemical Society, Analytical Division
- Society for Applied Spectroscopy
- Sigma Xi

#### D. Honors

- Lester W. Strock Award (with R.D. Sacks - 1987)
- Golden Key Honor Society Honorary Member (1993)

**II. Administrative Responsibilities** – Associate Dean, (2004-2011)

- Curriculum. Responsible for all curricular issues, including assisting departments/programs in preparing/submitting for review and implementing changes in courses, majors and minors offered. Serve as an ex-officio member of the College Curriculum Committee. Specific accomplishments include:
  - New *Minors* in:
    - Sexuality and Gender Identity Studies
    - Biochemistry
    - Global Studies
    - Linguistics
    - Dance
  - New *Majors* in:
    - Biochemistry (cross-college, with CALS and COM)
    - Chinese
    - Japanese
    - Global Studies
    - Linguistics
    - Neuroscience
  - Other Significant Curricular Changes:
    - Engineering B.A. degree (partner with CEMS on new degree program)
    - Neuroscience Ph.D. (with COM)
    - New department of Asian Languages and Literatures
    - Move of Communication Sciences department (and degrees) to CNHS
    - Deletion of minor in Studio Art
    - Changes to both B.A. and B.S. degrees in CAS
    - Supervised review of all minors offered in the College to conform with new University minor requirements
    - Supervised review of more than 100 grandparented CAS diversity courses for approval by the Diversity Curriculum Review Committee (DCRC)
    - Supervised creation and implementation of assessment plans in each department and program
- Graduate Education/Research. Responsible for communication between the College and Graduate College regarding graduate program issues; assignment and allocation of Graduate Teaching Assistantships to graduate programs in the College; primary contact for review and signoff of grant proposals with CAS faculty involvement; provide guidance to faculty in processes involved in preparation of new grant proposals.
- First-Year Programs/Honors Programs. Responsible for supporting all first-year programs (Teacher Advisor Program (TAP), Integrated First-Year Programs (IHP, ISSP, ISEE, IFA)); plan and lead (with CAS Student Services) advising workshops for TAP faculty; work with the CTL and WID to offer workshops on writing and teaching first-

year students for TAP faculty; serve as primary contact for coordination of College Honors program with the Honors College; serve as CAS representative on Honors College Council.

- Course and Room Scheduling. Responsible for interface between the College and the Registrar's Office in submitting the Schedule of Courses and any changes that are made prior to, during and after registration; review and approve all course and room change requests from departments and faculty; work with the Registrar's Office on resolving room scheduling issues; serve as a resource for departments and faculty with questions or problems about course and room scheduling.
- Advising. Responsible for advising training for new and continuing faculty (with Student Services), support first-year advising hold system, work with Student Services in assigning undeclared entering students to advisors; support faculty advising as part of TAP and in general in the College.
- Admissions. Responsible for working with Student Services on promotional materials for recruiting and yield efforts; participation in admissions/yield events (Open Houses in the fall, Admitted Student Visit Days in the spring); work with Student Services on first-time first year and transfer student orientation in June including presentation to parents.
- Other responsibilities included, but were not limited to:
  - Supervision and oversight of CAS-IT and Language Resource Center directors
  - Primary contact for facilities issues in the College
  - Primary contact for Chairs/Directors in Natural Sciences and Humanities programs
  - Assist with enrollment management issues, as needed
  - Primary contact for ADA issues in the College
  - Assist Dean with sabbatical, RPT and recruiting reviews

### **III. Research – Students Mentored**

- A. 14 undergraduate students since 1982.
- B. 12 M.S. and Ph.D. theses directed.

### **IV. Research Funding**

1. University Institutional Grant (1982-83). Discrete Atomization and Excitation of Nonconducting Solids for Elemental Analysis by Atomic Emission Spectroscopy. \$5,413.
2. ACS-PRF Type-G (1983-85). Imploding Plasmas as Atomization/Excitation Sources for Direct Solid Sampling Atomic Spectroscopy. \$15,000.
3. Research Corporation (1983-8). Imploding Plasmas as Atomization/Excitation Sources for Direct Solid Sampling Atomic Spectroscopy. \$7,700.
4. University Institutional Grant (1985-88). Imploding Plasma Atom Cells for Direct Solid Sampling Atomic Spectrometry. \$4,475.

5. National Science Foundation-EPSCoR (1986-1991). Analytical Studies of Imploding Plasma Atom Cells. \$147,261.
6. University Institutional Grant (1991-1992). ICP and MIP Re-excitation of Plasma Gun Sampled Vapor: Segregated Sampling and Excitation Approaches Towards Direct Solid Sampling Spectrochemical Analysis. \$5,000.
7. DOE/Argonne National Laboratory Contract (1995). The Spectroscopic Evaluation of Off-Gases Emitted from Organic Solvents Introduced into an Argon Inductively Coupled Plasma. \$5,000.

## V. **Teaching**

### A. Undergraduate Courses

1. CHEM 019 (Math Review for General Chemistry).
2. CHEM 020 (Chemical Principles and Contemporary Applications)
3. CHEM 023/025 (Outline of General Chemistry) - *online*
4. CHEM 031/032 (Introductory Chemistry).
5. CHEM 035/036/037/038 (General Chemistry) - for Chem Majors.
6. CHEM 121 (Quantitative Analysis).
7. CHEM 201/202 (Advanced Chemistry Laboratory).
8. HON 195 (Pathological Science: How Do We Know What We Know?) – CAS Junior Honors Seminar.
9. HCOL 195 (Pathological Science: How Do We Know What We Know?) – Honors College Sophomore Seminar.

### B. Graduate Courses

1. CHEM 221 (Instrumental Analysis).
2. CHEM 226 (Analytical Spectroscopy).

C. Undergraduate advising: Currently 30 students.

## VI. **University and Community Service**

### A. Committee Assignments

1. Departmental (current assignment only)  
*Curriculum Review Committee* (1983-1992, 1993-2003, 2004-present).  
Chair: 1986-1992, 2002–2003, 2004-2006, 2008-*present*
2. University/College (current assignments only)
  - a. *Pre-Medical Advisory Committee* (2001 - *present*)
  - b. *Goldwater Scholarship – UVM Coordinator* (2003-*present*)
3. Administrative (as Associate Dean, since 2004)
  - a. Integrated Advising Committee (2004-2005)
  - b. Strategic Enrollment Management (SEM) Council (2005-2009)
  - c. SEM Student Experience Task Force (2005-2007)  
Co-Chair: 2005-2007

- d. SEM Student Success and Satisfaction ("S-Cubed") Sub-Committee (2007-2009)  
Co-Chair: 2007-2009
- e. SEM First-Year Experience (FYE) Task Force (2009-2010)
- f. *FYE Advisory Board (2010-present)*  
Co-Chair: 2010-present
- g. *S-Cubed Working Group (2009-present)*
- h. Information Technology Planning Committee (2004-2006)
- i. Search Committee: Chief Information Officer (CIO) (2005)
- j. Search Committee: Director, Center for Teaching and Learning (2006)
- k. Search Committee: CAS Assistant Dean for Administration (2006)
- l. *College of Arts and Sciences Curriculum Committee* (2004-present)
- m. College of Arts and Sciences ByLaws Revision Committee (2006-2008)
- n. *Associate Deans Group (2005-present)*  
Coordinator: 2007-present
- o. *Continuing Education Advisory Board (2008-present)*
- p. Part-Time Bargaining Unit - Contract Negotiating Team (2009)
- q. *Pre-Medical Enhancement Program (PEP) Committee (2004-present)*
- r. NEASC Accreditation - Financial Standards Sub-Committee (2007-2008)
- s. University Assessment Council (2008-2009)
- t. *University Committee on Teacher Education (UCTE) (2008-present)*

#### B. Community/Professional Service

1. United Way - Chemistry Department Coordinator (1986, 1987).
2. Treasurer, Green Mountain Section, ACS (1986-90).
3. Assistant Program Chair (Atomic Spectroscopy), FACSS (Federation of Analytical Chemistry and Spectroscopy Societies) XIV (1986-87) and XV (1987-88).
4. Publications Committee, Society For Applied Spectroscopy (1987 - 89).
5. Symposium Organizer for FACSS XVI (*High-Current and Magnetically-Altered Plasmas*) -- 1988-89.
6. Symposium Organizer for FACSS XVII (*New Sources for Atomic Spectroscopy*) -- 1989-90.
7. Judge for Vermont State Science Fair (1990, 2005).
8. Co-organizer of 14th NEAAC (New England Academic Analytical Chemistry) Conference -- Bolton Valley, VT (Nov. 2-3, 1990).
9. Assistant Program Chair (Atomic Spectroscopy), FACSS (Federation of Analytical Chemistry and Spectroscopy Societies) XIX (1990-1992).
10. Chair-Elect, Green Mountain Section, ACS (1990-91).
11. Chair, Green Mountain Section, ACS (1991-92).
12. Secretary, Green Mountain Section, ACS (1992-1995).
13. Faculty Adviser, UVM Chapter, Golden Key National Honorary Society (1992-1995, 1996).
14. Exhibitions Chair for ACS-NERM 24 -- Burlington, VT (June 20-22, 1994).
15. Treasurer, Board of Directors, Shelburne Children's Center, Shelburne, VT (1995-1996).
16. President, Board of Directors, Shelburne Children's Center, Shelburne, VT (1996-1997).

17. Member, Board of Directors, Shelburne Children's Center, Shelburne, VT (1997-1998).
18. Assistant Program Chair (Atomic Spectroscopy), FACSS (Federation of Analytical Chemistry and Spectroscopy Societies) XXIV (1996-1997).
19. Local Section Affairs Committee, Society for Applied Spectroscopy (2003-2004)
20. United Way – CAS Dean's Office Coordinator (2004, 2005, 2006, 2007, 2008)
21. *Treasurer – Temple Sinai, South Burlington, VT (2010 – present)*

**VII. Conference Presentations** – 72 since 1980

**VIII. Invited Talks** – 37 since 1986

**IX. Publications** (peer-reviewed, except where noted)

1. W.H. Fuchsman, J.M. Goldberg, D. Levy, and Q.R. Smith, "Raman Spectroscopic Evidence of Porphyrin-Phenyl Resonance Interactions in Tetraphenyl Porphin, Tetraphenyl Porphin Dication, and Copper (II) Tetraphenyl Porphin", *Bioinorganic Chemistry*, **9**, 461 (1978).
2. R.D. Sacks, J.M. Goldberg, R.J. Collins, and S.Y. Suh, "Exploding Conductors as Atomization Cells and Excitation Sources for Atomic Spectroscopy", *Progress in Analytical Atomic Spectroscopy*, **5**, 111 (1982).
3. J. Goldberg and R. Sacks, "Direct Determination of Metallic Elements in Solid, Powder Samples with Electrically Vaporized Thin Film Atomic Emission Spectrometry", *Analytical Chemistry*, **54**, 2179 (1982).
4. J. Goldberg and R. Sacks, "Characterization of a Commercial Gated Silicon Intensified Target Vidicon for Transient, Nonrepetitive Radiation Sources", *Applied Spectroscopy*, **37**, 531 (1983).
5. Kevin P. Carney and Joel M. Goldberg, "Production and Initial Characterization of an Imploding Thin Film Plasma Source for Atomic Spectrometry", *Analytical Chemistry*, **58**, 3108 (1986).
6. Kevin P. Carney and Joel M. Goldberg, "Analytical Characterization of an Imploding Thin Film Plasma using Spatially- and Temporally-Resolved Spectroscopy", *Analytical Chemistry*, **58**, 3115 (1986).
7. J. Goldberg, Book Review: "Progress in Analytical Atomic Spectroscopy. Volume 7. (Ed. C. L. Chakrabarti)", *J. Amer. Chem. Soc.*, **108**, 8315 (1986). – *not peer-reviewed*
8. Kevin P. Carney and Joel M. Goldberg, "An Inexpensive Circuit for Pulsing-Off a Side-Window Photomultiplier Tube", *Applied Spectroscopy*, **41**, 308 (1987).
9. Kelly J. Mason and Joel M. Goldberg, "Production and Initial Characterization of a Laser-Induced Plasma in a Pulsed Magnetic Field for Atomic Spectrometry", *Analytical Chemistry*, **59**, 1250 (1987).

10. David S. Robinson, Kelly J. Mason, Frank L. Dorman and Joel M. Goldberg, "Evaluation of a Commercially-Available Laser-Scanning Microdensitometer for Emission Spectrographic Measurements", *Applied Spectroscopy*, 44, 1584 (1990).
11. Joel M. Goldberg and Kevin P. Carney, "Electrical Characteristics of Imploding Thin Film Plasma Atom Cells", *Spectrochimica Acta, Part B*, **45B**, 1167 (1990).
12. Joel M. Goldberg and Kevin P. Carney, "Mass-Flow Characteristics of Imploding Thin Film Plasma Atom Cells", *Spectrochimica Acta, Part B*, **45B**, 1177 (1990).
13. Joel M. Goldberg and Kevin P. Carney, "Emission Characteristics of Imploding Thin Film Plasma Atom Cells", *Spectrochimica Acta, Part B*, **46B**, 393 (1991).
14. Kelly J. Mason and Joel M. Goldberg, "Characterization of a Laser Plasma in a Pulsed Magnetic Field. Part I: Spatially-Resolved Emission Studies", *Applied Spectroscopy*, **45**, 370 (1991).
15. Joel M. Goldberg and David S. Robinson, "Initial Characterization of a Plasma Gun Source for Atomic Spectroscopy", *Analytical Chemistry*, **63**, 2357 (1991).
16. Kelly J. Mason and Joel M. Goldberg, "Characterization of a Laser Plasma in a Pulsed Magnetic Field. Part II: Time-Resolved Emission and Absorption Studies", *Applied Spectroscopy*, **45**, 1444 (1991).
17. Jennifer B. Cappel, Alexander Scheeline and Joel M. Goldberg, "Effect of Addition of Hydrogen to the Argon Sheath of a Unidirectional, High-Voltage Spark", *Applied Spectroscopy*, **47**, 309 (1993).
18. Joel M. Goldberg and David S. Robinson, "Parametric Studies of Emission from a Plasma Gun Source for Atomic Spectroscopy", *Spectrochimica Acta, Part B*, **50B**, 885 (1995).
19. Ed Navarre and Joel M. Goldberg, "Design and Characterization of a Theta-Pinch Imploding Thin Film Plasma Source for Atomic Emission Spectrochemical Analysis", *Applied Spectroscopy*, **65**, 26 (2011).