

CURRICULUM VITAE for KENNETH M. WEED

Educational Experiences

Ph.D., Analytical/Physical Chemistry

Joint Program of University of California, San Diego and San Diego State University, San Diego, CA.
June, 1994. Advisor: Dr. William G. Tong

Doctoral Dissertation: Sensitive Doppler-Free Laser Spectroscopy Based on Degenerate Four-Wave Mixing for Trace Isotope Analysis Using Flame Atomizers.

Master of Arts, Analytical Chemistry

San Diego State University, San Diego, CA. May 1991

Bachelor of Science, Biomedical Chemistry

Oral Roberts University, Tulsa, OK. May 1986, Magna Cum Laude

Instructional Experiences

Tenured Professor of Chemistry, Oral Roberts University. Fall 2009-2013

- Recombinant DNA Technology
Upper division survey course covering recent developments in analytical techniques as applied to DNA technology and the ethical implications of their use in light of a Christian Worldview.
- Environmental Analysis
An environmental chemistry course focusing on problem solving and analysis of complex data sets, and the role of Christians in increasing awareness of environmental issues.
- Principles of Chemistry
A non-majors course discussing the basic principles of chemistry to demonstrate the use of chemistry in everyday life and the unique beauty of God's creation.
- Senior Paper
Recent research projects include: DNA homology studies, HPLC studies of organically grown foods, Sol-Gel thin film development, ICP of herbal products, Vitamin A research, and DNA technique development.

Tenure, Fall 2003

Associate Professor of Chemistry, Oral Roberts University. Fall 2000-2009

Assistant Professor of Chemistry, Oral Roberts University. Fall 1996-2000

Lecturer, University of San Diego. 1995-1996

Guest Lecturer, Oral Roberts University. Recurring opportunities 2001-present

- *Advances in Cloning Technologies*, Science and the Imagination
- *Bioethics of Cloning*, Ethics (for Graduate School of Theology)
- *Darwinian Evolution: Biochemistry*, Philosophy of Science

Administrative Service

Dean, College of Science and Engineering. Spring 2013-present

- Coordinate and supervise work in four different departments consisting of a total of 48 faculty and 6 staff members

Chair, Biology and Chemistry Department. Fall 2012

- Coordinate and supervise work of 15 faculty and 2 staff members

Co-coordinator, HLC Self-Study process for 2012 comprehensive site visit. Fall 2009-2012

- Coordinated the activities of eight committees consisting of 41 faculty members and administrators in a comprehensive study of the university concentrating specifically on leadership, governance, and financial planning processes.

Co-chair, HLC Steering Committee for 2012 comprehensive site visit. Fall 2009-2012

- Developed and implemented a multi-year plan to educate the university community concerning self study activities and incorporated university constituencies into the overall process.

Coordinator of Planning and Institutional Accreditation. Fall 2008-2012

- Facilitated communication of university policies and procedures through the use of handbook development and reporting procedures with faculty, staff, administration, and Board of Trustees members

Chair, Resource Room Committee for HLC Focused Site Visit for Online Programs. 2010

- Coordinated production a physical artifact library and work room space

Author, *Progress Report on Governance, Leadership, and Financial Planning* report. 2009

- Facilitated the development and production of a progress report reviewing changes within the university from 2007 to 2009 as required by the HLC.

Chair, Governance Design committee of Faculty Governance Task Force. Spring 2008-2009

- Coordinated efforts to collaboratively redesign faculty governance into a representative model with open communication and clearly defined processes to administer faculty responsibilities concerning curriculum, graduation requirements, and faculty hiring procedures.

Member, HLC Re-accreditation Steering Committee. Spring 2005-2007

- Facilitated production of an electronic artifact library with a corresponding physical artifact library containing all of the required artifacts for the 2007 comprehensive site visit.

Academic Service

Associate Editor for Science and Fine Arts, *Journal of Scholarship of Teaching and Learning for Christians in Higher Education*. 2005-present

Chair, University Tenured Faculty. Fall 2005-2008; member from 2003-present

Member, Writing Across the Curriculum Committee. 2001-present

Chair, Christian Worldview Committee. 2004-2009; member from 2000-present

Member, Environmental Green Committee. 2008-2012

Member, University Strategic Planning Council. Fall 2007-2010

President, School of Science & Engineering Faculty Senate. Fall 2007-2008

Chair, Grants and Research subcommittee of University Faculty Assembly (UFA) Faculty Enrichment Committee. Spring 2002-2009

President, University Faculty Assembly and UFA Executive Committee. 2001-2002

Chair, Cross Pollination subcommittee of UFA General Education Committee. Fall 1999-2009

Academic Awards

Outstanding Service Award. 2008

- Recognition from the School of Science & Engineering concerning excellence in leadership.

Outstanding Service Award. 2007

- Recognition from the School of LifeLong Education concerning excellence in service in assisting faculty in developing online courses.

Eugene Swearingen Award for Outstanding Faculty Member. 2005

- Recognition from the entire Oral Roberts University community concerning excellence in teaching.

Outstanding Faculty Member, School of Arts and Sciences. 2005

- Recognition from the School of Arts and Sciences concerning excellence in teaching.

Outstanding Chemistry Faculty Member of the Year Award. 2005

- Recognition from the Department of Chemistry concerning excellence in teaching.

Faculty Service Award. 2002

- Recognition of services rendered as president of UFA.

Professionalism in the Classroom Award. 2001

- Recognition from the Vice President for University Relations concerning excellence in the classroom.

Outstanding Chemistry Faculty Member of the Year Award. 2001

- Recognition from the Department of Chemistry concerning excellence in teaching.

Outstanding Chemistry Faculty of the Year Award. 2000

- Recognition from the Department of Chemistry concerning excellence in teaching.

Excellence in Teaching Award. 1999

- Recognition from the Dean of Arts and Sciences concerning excellence in teaching.

American Chemical Society-VIP Award. 1993

- Recognition for volunteering to provide science lab experiences for high school students with special needs.

Funded Research and Academic Activities

Oklahoma Regents for Higher Education Summer Math and Science Academy (\$35,000 per year for 3 years). Spring 2010

- Participated as an instructor in the academy.

Sabbatical study titled *Bioinformatics and Functional Genomics*. Fall 2004

- Grant to develop student awareness and skills in accessing and using bioinformatics information.

Service Learning Grant (\$500). Spring 2002

- Grant to be used for Science Secondary Education students and Environmental Analysis students to assist high school science teachers in interpreting safe protocols for operating safe laboratory courses.

Oklahoma EPSCoR Grant (\$17,000). Summer 1998

- Grant to initiate a collaborative effort between ORU and the University of Tulsa (Dr. Thomas Harris) to develop remote sensors based on sol-gel technology to detect trace amounts of metal ions in environmental samples.

UFA Research Committee Intramural Grant (\$2,000). Spring 1997

- Grant to investigate opportunities to enhance the use of laser spectroscopy in ORU student research

Professional Activities

American Chemical Society (ACS) Member. 1987–present

- Director, Tulsa Local Section. 2002–2003
- Government Local Section Liaison, Tulsa Section. 2000–present.
- Chair, Tulsa Local Section. 2000
- Career Local Section Consultant, Tulsa Section. 1999–2005
- Secretary, Tulsa Local Section. 1998
- ORU ACS Student Affiliate Faculty Advisor. 1997–2006

Publications

Building Holy Spirit-Empowered Leaders to Impact Their World: A Self-Study Report. 2012

- Edited based on reports submitted by faculty and staff committees working in preparation for a comprehensive site visit from the Higher Learning Commission (HLC).

The History of Renewing the Vision: The Power of Mission. September 2009

- An invited paper for the ORU Board of Trustees.

Progress Report on Leadership, Governance, and Financial Planning. April 2009

- Required report submitted to the HLC. April 2009

Effectiveness of a Writing Intensive program to Increase Student Learning in an Introductory Chemistry Laboratory program. 2005

- Published in the online *Journal of the Scholarship of Teaching and Learning for Christians in Higher Education*, volume 1.

Worshipping God through the Study of Chemistry: A Laboratory Manual for Principles of Chemistry. 2005

- Published for student use in laboratories in Oral Roberts University.

Department of Chemistry ePortfolio Handbook. 2004

- Prepared for use by students and faculty associated with the ORU chemistry program.

Trace analysis of rubidium hyperfine structure in a flame atomizer using sub-Doppler laser wave-mixing spectroscopy. 2003

- An invited paper by Tong, W. G., and Weed, K. M. for *Applied Spectroscopy*, **57**, 12, 1455.

Sensitive Sub-Doppler Multiwave-Mixing Spectroscopy. 1995

- A paper by Tong, W. G., Weed, K. M. and Maniaci, M., for *SPIE Proceedings*, **2385**.

Doppler-Free Spectrum of the Barium 1S_0 - 1P_1 Transition by Degenerate Four-Wave Mixing Using an Air/Acetylene Flame. 1991

- A paper by Tong, W. G., Andrews, J. A. and Weed, K. M. for *Applied Spectroscopy*, **45**, 4, 697.

Publication Activities

- Associate Editor of Fine Arts and Science for the *Journal of Scholarship of Teaching and Learning for Christians in Higher Education*. 2005-present
- Professional peer reviewer for the *Journal of Chemical Education*. 2004-present
- Reviewer for textbook *Investigating Chemistry: A Forensic Science Perspective*. Fall 2006

Professional Conferences

- Higher Learning Commission Annual Meeting, Chicago, IL. April 2012
- Science and Science Fiction Conference, Tulsa, OK. April 2012
- Higher Learning Commission Annual Meeting, Chicago, IL. April 2011
- C.S. Lewis and the Inklings Annual Conference, Tulsa, OK. April 2011
- Higher Learning Commission Annual Meeting, Chicago, IL. April 2010
- American Association of Colleges and Universities Annual Meeting, Baltimore, MD. April 2009
- Higher C.S. Lewis and the Inklings Annual Conference, Tulsa, OK. April 2011
- Learning Commission Annual Meeting, Chicago, IL. April 2008
- *Development of Effective Online Courses*, Online Training. 2007-2008
- Higher Learning Commission Annual Meeting, Chicago, IL. April 2005
- CCCU Leadership Development Institute, Seattle, WA. June 2004
- Co-Hosted and attended ORU's Leadership Development Institute, Tulsa, OK. May 2002
- Chair, ORU Share the Wealth Faculty Conference with Tim Elmore, Tulsa, OK. March 2002
- Ashville Institute for General Education, Ashville, NC. July 2001
- The Christian Mind in the New Millenium, Chicago, IL. June 2001
- Discovery Institute's Intelligent Design Conference, Grand Rapids, MI. May 2001
- American Chemical Society Career Consultant Conference, Washington, DC. April 2000
- Co-Chair of the 44th Oklahoma Pentasectional Meeting of the American Chemical Society, Tulsa, OK. September 1999
- American Chemical Society Annual Leadership Conference, Tempe, AZ. Feb. 1999
- 43rd Oklahoma Pentasectional Meeting, Ponca City, OK. August 1998
- Chair, Analytical Section of the 53rd Southwestern Regional American Chemical Society Meeting, Tulsa, OK. April 1997

Presentations

- Weed, K.M. *Chaos, Culture, and Conditioners: Asimov, Lewis, and Scientific Decision-Making*, Science and Science Fiction Conference, Tulsa OK. April 2012
- Weed, K.M.; Nichol, J. *Science and the Tao: Induced Pluripotent Stem Cells and the Remaking of Man*, C.S. Lewis and the Inklings Annual Conference, Tulsa, OK. April 2011
- Weed, K.M. *Knowing God, Serving Man: The Joy of Science*, Having an Answer—More Reasons for Hope, Tulsa, OK. April 2010
- Weed, K.M. *DNA versus Experience: Who are you really?*, Having an Answer—More Reasons for Hope, Tulsa, OK. April 2010
- Weed, K.M. *Stem Cells for Healing: A Gift from God?*, Having an Answer—Faith and Science Conference, Tulsa, OK. November 2009
- Weed, K.M.; Hall, M.R. *Use of ePortfolio Curriculum Assessment Data to Evaluate Academic Programs*, AACU Annual Conference, Baltimore, MD. April 2009
- Weed, K.M., *Working within the Tao: A response to Our Posthuman Future*, C.S. Lewis and the Inklings Conference, Tulsa, OK. April 2005
- Weed, K.M., *Writing to Learn in a Non-majors Chemistry Lab*, Writing Across the Disciplines National Conference, St. Louis, MO. June 2004
- Weed, K.M., Kanitz, L., Locke, L., and Doerner, *Developing a Learning Community*, Writing Across the Disciplines National Conference, St. Louis, MO. June 2004
- Weed, K. M., *Can the Study of Chemistry Lead to God?*, 2002 ORU Alumni Faculty Recognition Award Competition, Tulsa, OK. September 2002
- Weed, K. M., *Use of The Abolition of Man in the Teaching of DNA Technology*, C.S. Lewis and the Inklings Conference, Oral Roberts University, Tulsa, OK. April 1999

- Weed, K. M., *Development of a Metal Ion Sensor Using Dithizone Encapsulated Sol-Gel Silica Thin Films*, 1998 Pentasectional Meeting of the American Chemical Society, Bartlesville, OK. August 1998
- Weed, K. M. and Tong, W. G., *Resonant Degenerate Four-Wave Mixing as a Nonlinear High Resolution Laser Method for Isotope Ratio Analysis*, American Chemical Society National Meeting, San Diego, CA. March 1994
- Weed, K. M. and Tong, W. G., *Rubidium Hyperfine Structure Analysis By Nonlinear Resonant Degenerate Four-Wave Mixing Laser Spectroscopy*, Pacific Conference on Chemistry and Spectroscopy, American Chemical Society and Society of Applied Spectroscopy, Pasadena, CA. October 1993
- Weed, K. M. and Tong, W. G., *Sub-Doppler Hyperfine Structure Measurement and Isotope Ratio Analysis by Degenerate Four-Wave Mixing*, Sandia Livermore National Laboratory, Livermore, CA. December 1992 (Invited seminar)
- Weed, K. M., Tong, W. G., *Analysis of Hyperfine Profiles Monitored by Nonlinear Laser Spectroscopy Based on Resonant Degenerate Four-Wave Mixing*, Pacific Conference on Chemistry and Spectroscopy, American Chemical Society and Society of Applied Spectroscopy, Foster City, CA. October 1992 (Invited paper)
- Weed, K. M., Tong, W. G., *Trace-Concentration Elemental Analysis by Nonlinear Multiwave Mixing Spectroscopy in Flame and Discharge Atomizers*, Federation of Analytical Chemistry and Spectroscopic Societies XVIII Meeting, Anaheim, CA. October 1991

Community Service

- Mentor fifth and sixth grade students in spiritual formation through weekly community development activities.
- Taught a six-week series at Believers Church on *The Search for Truth* based on the six days of creation. October 2011
- Serve as an elder at Believers Church. 2010-present
- Lead cell life group meeting with multiple couples on a weekly basis to follow
- Taught a bioinformatics lesson on Hereditary Hemochromatosis during the Union High Collegiate Academy. March 2009 and 2010
- Developed a Sunday night children's church curriculum. 2008
- Served as a USA Gymnastics Certified Judge for Tumbling and Trampoline, Levels 1 to 7. 2000-2006
- Served as Communications Coordinator for the Spirit, Soul and Body Gymnastics Booster Club. 2001-2003
- Developed and administered educational opportunities to assist homeschool parents in using Science Fair as a teaching tool. 2000-2003
- Developed and administered an ORU Homeschool Science Fair to allow homeschool students participate in Tulsa Regional Science Fair. 2000-2001
- Volunteered as a judge for the Tulsa Regional Science and Engineering Fair. 1997-2002
- Coordinated Hands-On lab opportunities for elementary students to attend a field trip within the ORU Chemistry department. 1999-2002
- Acted as Treasurer for Boy Scouts Troop 16. 2001
- Participated in the ORU Homeschool Spelling Bee as a reader. 1999-2000
- Volunteered as a judge for the Oklahoma Statewide Science and Engineering Fair. 1999-2001
- Coordinated program for ACS Student Affiliates to teach science to 4th grade students at Anderson Elementary in North Tulsa. 1998