

Curriculum Vita
PHILIP W. CRAWFORD
Department of Chemistry and Physics
Southeast Missouri State University

EDUCATION

- 1991 Ph.D. (Analytical Chemistry), Marquette University, Milwaukee, WI

Dissertation: "Electrochemistry and Spectroelectrochemistry of E. Coli Sulfite Reductase Hemoprotein and Model Iron Porphyrins" (Graduate Advisor: Dr. Michael Ryan)
- 1986 M.S. (Organic Chemistry), University of Wisconsin-Milwaukee, Milwaukee, WI

Thesis: "The Electrochemical Properties of Iminiums and Other Biologically Active Compounds" (Graduate Advisor: Dr. Peter Kovacic)
- 1983 B.A. (Chemistry), University of Indianapolis, Indianapolis, IN

PROFESSIONAL EXPERIENCE

- 2018-Present Chairperson, Department of Chemistry and Physics, Southeast Missouri State University
- 2018-Present Professor, Department of Chemistry and Physics, Southeast Missouri State University
- 2016 Awarded Post-Professorial Merit, Southeast Missouri State University
- 2011 Awarded Post-Professorial Merit, Southeast Missouri State University
- 2004 - 2018 Professor, Department of Chemistry, Southeast Missouri State University
- 2002 - 2018 Chairperson, Department of Chemistry, Southeast Missouri State University
- 1998 - 2004 Associate Professor, Department of Chemistry, Southeast Missouri State University
- 1992 - 1998 Assistant Professor, Department of Chemistry, Southeast Missouri State University
- 1992 Adjunct Faculty, Department of Chemistry, University of Indianapolis
- 1991 - 1992 Postdoctoral Research Associate, Department of Chemistry, Indiana University-Purdue University at Indianapolis (Advisor: Dr. Frank Schultz)
- 1986 - 1991 Graduate Assistant, Department of Chemistry, Marquette University
- 1983 - 1986 Graduate Assistant, Department of Chemistry, University of Wisconsin-Milwaukee
- 1981-1983 Undergraduate Lab Assistant, Department of Chemistry, University of Indianapolis

PROFESSIONAL MEMBERSHIPS:

American Chemical Society (1983-present)

Alpha Chi Sigma (2015-present)

PUBLICATIONS

Articles or Papers in Refereed Journals

- 1) P. Kovacic, P. W. Crawford, M. D. Ryan, and V. C. Nelson, "Charge Transfer Mechanism for Carcinogenesis by Alkylating and Other Agents", *Bioelectrochemistry and Bioenergetics*, 1986, **15**, 305.
- 2) P. W. Crawford, P. Kovacic, S. Rault, M. Robba, and M. D. Ryan, "Electrochemical Reduction of Pyrrolothienopyrazines (Free Bases and Salts): Relation to Structure", *Bulletin De La Societe Chimique De France*, 1986 (5), 756.
- 3) P. W. Crawford, P. Kovacic, N. W. Gilman, and M. D. Ryan, "Charge Transfer Mechanism for Benzodiazepine (BZ) Action. Correlation of Reduction Potential of BZ Iminium with Structure and Drug Activity", *Bioelectrochemistry and Bioenergetics*, 1986, **16**, 407.
- 4) P. W. Crawford, R. G. Scamehorn, V. Hollstein, M. D. Ryan, and P. Kovacic, "Cyclic Voltammetry of Phenazines and Quinoxalines Including Mono- and Di-N-oxides. Relation to Structure and Antimicrobial Activity", *Chemico-Biological Interactions*, 1986, **60**, 6.
- 5) P. W. Crawford, P. Lumme, H. Elo, M. D. Ryan, and P. Kovacic, "Charge Transfer-Oxy Radical Mechanism for Anticancer Agents: mAmsa Derivatives, Rhodamine 123, and Nickel Salicylaldehyde", *Free Radical Research Communications*, 1987, **3**, 347.
- 6) P. W. Crawford, W. O. Foye, M. D. Ryan, and P. Kovacic, "Cyclic Voltammetry of Quinolinium Salts and Related Compounds: Correlation with Structure and Anticancer Activity", *Journal of Pharmaceutical Sciences*, 1987, **76**, 481.
- 7) P. W. Crawford and M. D. Ryan, "The Electrochemistry and Spectroelectrochemistry of Sulfate Complexes of Iron Porphyrins", *Inorganica Chimica Acta*, 1991, **179**, 25.
- 8) P. W. Crawford and M. D. Ryan, "Multi-electron Transfer Spectroelectrochemistry: Application to E. coli Sulfite Reductase", *Proceedings of the Fifth International Symposium on Redox Molecules of Biological Importance*, F. A. Schultz and I. Taniguchi, Eds., Electrochemical Society: Pennington, New Jersey, 1993; Vol. 93-11, pp 97-107.
- 9) P. W. Crawford and F. A. Schultz, "Inner-Shell Effects on Heterogeneous Electron Transfer Rates of Bis(1,4,7-triazacyclononane) (tacn) Redox Couples, $M(\text{tacn})_2^{3+/2+}$ ($M = \text{Fe, Co, Ni, Ru}$)", *Inorganic Chemistry*, 1994, **33**, 4344.

- 10) P. W. Crawford and M. D. Ryan, "Spectroelectrochemical Studies of E. coli Sulfite Reductase", *Journal of Inorganic Biochemistry*, 1995, **59**, 552.
- 11) P. W. Crawford, E. Carlos, J. C. Ellegood, C. C. Cheng, Q. Dong, D. F. Liu and Y. L. Luo, "The Electrochemistry of Antineoplastic Furanquinones: Electrochemical Properties of Benzo[b]naphtho[2,3-d]furan-6,11-dione Derivatives", *Electrochimica Acta*, 1996, **41**, 2399.
- 12) P. W. Crawford, K. Lawson, J. Gross, C. C. Cheng, Q. Dong, D. F. Liu, Y. L. Luo, B. G. Szczepankiewicz and C. Heathcock, "The Electrochemistry of Some Biologically Active Quinones: Furanquinones, Pyridoquinones, and Diplamine, A Cytotoxic Pyridoacridine Alkaloid", *Journal of the Electrochemical Society*, 1997, **144**, 3710.
- 13) P. W. Crawford and M. D. Ryan, "Electrochemistry and Spectroscopy of Sulfate and Thiosulfate Complexes of Iron Porphyrins", *Inorganica Chimica Acta*, 2002, **328**, 13.
- 14) K. Lawson, J. Gross, and P. W. Crawford, "The Electrochemistry and Spectroscopy of Sulfate Complexes of Manganese Tetraphenylporphyrin", *Helvetica Chimica Acta*, 2004, **87**, 120.
- 15) E. Moreno, S. Pérez-Silanes, S. Gouravaram, A. Macharam, S. Ancizu, E. Torres, I. Aldana, A. Monge and P. W. Crawford, "1,4-Di-N-Oxide Quinoxaline-2-Carboxamide: Cyclic Voltammetry and Relationship Between Electrochemical Behaviour, Structure, and Anti-tuberculosis Activity", *Electrochimica Acta*, 2011, **56**, 3270.
- 16) S. Pérez-Silanes, G. Devarapally, E. Torres, E. Moreno-Viguri, I. Aldana, A. Monge, and P. W. Crawford, "Cyclic Voltammetric Study of Some Anti-Chagas Active Quinoxaline 1,4-Dioxidoquinoxalin-2-yl Ketone Derivatives", *Helvetica Chimica Acta*, 2013, **96** (2), 217.
- 17) E. Torres, E. Moreno-Viguri, S. Galiano, G. Devarapally, P. W. Crawford, A. Azqueta, L. Arbillaga, J. Varela, E. Birriel, R. Di Maio, H. Cerecetto, M. González, I. Aldana, A. Monge, and S. Pérez-Silanes, "Novel Quinoxaline 1,4-Di-N-oxide Derivatives as New Potential Antichagasic Agents", *European Journal of Medicinal Chemistry*, 2013, **66**, 324-334.
- 18) E. M. Miller, Q. Xia, M. E. Cella, A. W. Nenner, M. N. Mruzik, K. A. Brillos-Monia, Y. Z. Hu, R. Sheng, C. M. Ragain, and P. W. Crawford, "Voltammetric Study of Some 3-Aryl-quinoxaline-2-carbonitrile 1,4-di-N-oxide Derivatives with Anti-Tumor Activities", *Molecules*, 2017, **22**, 1442; doi:10.3390/molecules22091442.
- 19) E. M. Miller, C. Brazel, K. A. Brillos-Monia, P. W. Crawford, M. R. Loncaric, M. N. Mruzik, A. W. Nenner, C. R. Ragain, "Computational Study of 3-Aryl-quinoxaline-2-carbonitrile 1,4-di-N-oxide Derivatives with Anti-Tumor Properties", in preparation.

Non-Refereed Articles

- 1) E. Moreno, S. Gouravaram, S. Ancizu, E. Torres, S. Pérez-Silanes, I. Aldana, P. W. Crawford, A. Monge, "Synthesis, Biological Evaluation and Electrochemical Behavior of Quinoxaline 1,4-Di-N-oxides as Anti-tuberculosis Agents", 30th Edition of the European School of Medicinal Chemistry, Urbino, Italy, 2010, p. 1.
- 2) E. Moreno, S. Gouravaram, S. Pérez-Silanes, S. Ancizu, I. Aldana, P. W. Crawford, and A. Monge, "Quinoxaline-2-Carboxamide 1,4-Di-N-oxide Derivatives as Anti-tuberculosis Agents: Synthesis, Biological Evaluation and Electrochemical Studies", XXIst International Symposium on Medicinal Chemistry, European Federation for Medicinal Chemistry, Brussels, Volume: ChemMedChem 2010; ISMC 2010 Book of Abstracts, p. 59.
- 3) E. Torres, E. Moreno de Viguri, C. Boreal, A. Gill, A. Azqueta, L. Arbillaga, P. W. Crawford, S. Galiano, I. Aldana, M. González, A. Monge, and S. Pérez-Silanes, "Trifluoromethylquinoxaline 1,4-Di-N-oxide Derivatives as Anti-trypanosomatid Agents. Synthesis, Biological Evaluation and Electrochemical Studies", XXIInd International Symposium on Medicinal Chemistry, European Federation for Medicinal Chemistry, Berlin, Volume: ChemMedChem 2012; ISMC 2012 Book of Abstracts, p. 345.

PRESENTATIONS

Presented and/or Coauthored (Presenter Underlined)

- 1) P. W. Crawford, P. Kovacic, N. W. Gilman, and M. D. Ryan, "Charge Transfer Mechanism for Benzodiazepine (BZ) Action. Correlation of Reduction Potential of BZ Iminium with Structure and Drug Activity", American Chemical Society, 20th Great Lakes Regional Meeting, Milwaukee, WI, June 1986.
- 2) P. W. Crawford, P. Kovacic, N. W. Gilman, and M. D. Ryan, "Charge Transfer Mechanism for Benzodiazepine (BZ) Action. Correlation of Reduction Potential of BZ Iminium with Structure and Drug Activity", American Chemical Society, 191st National Meeting, New York, NY, April 1986.
- 3) P. W. Crawford and M. D. Ryan, "Electrochemistry of Iron Porphyrin Complexes with Sulfate", Federation of Analytical Chemistry and Spectroscopy Societies, 16th National Meeting, Chicago, IL, February 1989.
- 4) P. W. Crawford and F. A. Schultz, "Relationship Between Heterogeneous Electron Transfer Rate and Structural Change in Bis(1,4,7-Triazacyclononane) Metal Complexes", American Chemical Society, 25th Great Lakes Regional Meeting, Milwaukee, WI, 1992.

- 5) P. W. Crawford and M. D. Ryan, "Multi-electron Transfer Spectroelectrochemistry: Application to E. coli Sulfite Reductase", Electrochemical Society Meeting, Honolulu, HI, June 1993.
- 6) P. W. Crawford and F. A. Schultz, "Inner-Shell Effects on Heterogeneous Electron Transfer Rates of Bis(1,4,7-Triazacyclononane) Redox Couples", American Chemical Society, 29th Midwest Regional Meeting, Kansas City, MO, November 1994.
- 7) P. W. Crawford and F. A. Schultz, "Inner-Shell Effects on Heterogeneous Electron Transfer Rates of Bis(1,4,7-Triazacyclononane) Redox Couples", Missouri Academy of Science, 1994 Annual Meeting, Cape Girardeau, MO, April 1994.
- 8) F. W. Schultz, K. B. Lipkowitz, Y. D. Gao, and P. W. Crawford, "Experimental and Theoretical Studies of Inner-Shell Barriers to Heterogeneous Electron-Transfer in Bis(1,4,7-Triazacyclononane) Redox Couples, $M(\text{tacn})_2^{3+/2+}$ (M = Fe, Co, Ni, Ru)", Electrochemical Society, 187th National Meeting, Reno, Nevada, May 1995.
- 9) K. Lawson, J. Gross, and P. W. Crawford, "The Electrochemistry of Sulfate Complexes of Manganese Tetrphenylporphyrin", American Chemical Society, 29th Great Lakes Regional Meeting, Normal, IL, May 1996.
- 10) K. Lawson, J. Gross, and P. W. Crawford, "The Electrochemistry of Sulfate Complexes of Manganese Tetrphenylporphyrin", American Chemical Society, 214th National Meeting, San Francisco, CA, April 1997.
- 11) P. W. Crawford and M. Rodgers, "Powerpoint on the Web", Technology Serving Learning Summer 1999 Institute, Southeast Missouri State University, June 1999.
- 12) J. Gross, K. Lawson, and P. W. Crawford, "The Spectroscopy and Electrochemistry of Sulfate Complexes of Manganese Tetrphenylporphyrin", American Chemical Society, 38th Midwest Regional Meeting, Columbia, MO, November 2003.
- 13) J. Seabaugh, M. Palmieri, P. W. Crawford, H. Dong and J.E. Champine, "Interaction of Lead and Calcium with Lead-resistant Microorganisms from Soil Contaminated with Chat", 103rd General Meeting of the American Society for Microbiology, Washington, DC, May 2003.
- 14) P. W. Crawford, "Trace Metal Analysis of Ecstasy by Microwave-assisted Digestion and Inductively Coupled Plasma-Optical Emission Spectroscopy", Midwest Forensic Research Consortium (MFRC) Annual Meeting, Iowa State University, Ames Iowa, June 2005.
- 15) J. T. Forys, J. E. Champine, J. L. Seabaugh, T. W. Capps and P. W. Crawford, "Resting Cell Studies of Lead-removal by Rhodospiridium paludigenum from Chat-contaminated Soil", 107th General Meeting of the American Society for Microbiology, Toronto, Ontario, Canada, June 2007.

- 16) P. W. Crawford, J. McGill, P. Johnson, "Trace Metal Analysis of Ecstasy by Microwave-assisted Digestion and Inductively Coupled Plasma-Optical Emission Spectroscopy", Midwestern Universities Analytical Chemistry Conference (MUACC), Indiana University, Bloomington, IN, November 2008.
- 17) E. Moreno, S. Gouravaram, S. Pérez-Silanes, S. Ancizu, I. Aldana, P. W. Crawford and A. Monge, "Quinoxaline-2-Carboxamide 1,4-Di-N-Oxide Derivatives as Anti-tuberculosis Agents: Synthesis, Biological Evaluation, and Electrochemical Studies", XXIst International Symposium on Medicinal Chemistry, Brussels, Belgium, September 2010.
- 18) E. Torres, E. Moreno de Viguri, C. Boreal, Ana Gill, A. Azqueta, L. Arbillaga, P. W. Crawford, S. Galiano, I. Aldana, M. González, A. Monge, and S. Pérez-Silanes, "3-Trifluoromethylquinoxaline 1,4-Di-N-Oxide Derivatives as Anti-trypanosomatid Agents. Synthesis, Biological Evaluation and Electrochemical Studies", EFMC-ISMC 2012, 22nd International Symposium on Medicinal Chemistry, Berlin, Germany, September 2012.
- 19) E. M. Miller, Q. Xia, M. E. Cella, A. Nenninger, M. N. Mruzik, K. A. Brillos-Monia, Y. Hu, R. Sheng, C. Ragain, P. W. Crawford, "Voltammetric and Preliminary Computational Study of 3-Aryl-Quinoxaline-2-Carbonitrile 1,4-Di-N-oxide Derivatives with Anti-Tumor Properties", American Chemical Society, 255th National Meeting, New Orleans, LA, March 2018.
- 20) E. M. Miller, A. Nenninger, M. N. Mruzik, K. A. Brillos-Monia, P. W. Crawford, C. Ragain, "Computational Study of 3-Aryl-Quinoxaline-2-Carbonitrile 1,4-Di-N-oxide Derivatives with Anti-tumor Properties", American Chemical Society, 255th National Meeting, New Orleans, LA, March 2018.
- 21) Rachel Morgan Theall, Marcus R. Bond, Philip W. Crawford, Sarah E. Shaner, "Development of Performance Expectations for Entropy", Biennial Conference on Chemical Education (hosted by the University of Notre Dame), South Bend, IN, August 2, 2018.

GRANTS RECEIVED

- 1) P. W. Crawford, "The Electrochemistry of Metalloporphyrin Complexes as Models for the Active Sites of Sulfite Reductase Enzymes", Grants and Research Funding Committee, Southeast Missouri State University, 1993, \$2183.00.
- 2) P. W. Crawford, "A Quantitative Investigation of Electrochemical Structure-Reactivity Relationships in Coordination Compounds", Grants and Research Funding Committee, Southeast Missouri State University, 1995, \$2500.

- 3) "Heartland's Alliance for Minority Participation" (written by an ad hoc committee), National Science Foundation (administered through the University of Missouri), \$54,000, 1997.
- 4) P. W. Crawford, J. McGill, P. Johnson, "Trace Metal Analysis of Ecstasy by Microwave-assisted Digestion and Inductively Coupled Plasma-Optical Emission Spectroscopy (ICP-OES)", Midwest Forensic Research Consortium, 2004, \$55,000
- 5) P. W. Crawford, "Trace Metal Analysis of Ecstasy by Microwave-Assisted Digestion and Inductively Coupled Plasma-Optical Emission Spectroscopy (ICP-OES)", Grants and Research Funding Committee, Southeast Missouri State University, 2004, \$5440.
- 6) P. W. Crawford, "Trace Metal Signature Profiling of Ecstasy Tablets", Grants and Research Funding Committee, Southeast Missouri State University, 2006, \$2830.
- 7) P. Johnson and P. W. Crawford, "Detect Drugs in Blood", Missouri Department of Transportation, 2006, \$19,188.
- 8) P. W. Crawford and J. McGill, "Earmark Proposal for the Establishment of a Forensic Science Research and Education Laboratory at Southeast Missouri State University", 2010, \$700,000.
- 9) T. Wilke, L. Howe, C. McGowan, P. W. Crawford, "Academic Research Infrastructure (Recovery Act) Chemistry and Physics Faculty Research Lab Renovations", National Science Foundation, 2010, \$1,300,000.
- 10) P. W. Crawford, "Cyclic Voltammetric Study of the Relationship between the Electrochemical Behavior, Structure, and Biological Activities of Quinoxaline-Di-N-Oxide Derivatives Which Possess Anti-Tuberculosis Properties", GRFC, \$7495, 2013.
- 11) P. W. Crawford and C. Ragain, "Computational Study of the Relationship between the Electrochemical Behavior, Structure, and Biological Activities of Quinones and Quinoxaline-Di-N-Oxide Derivatives", GRFC, \$3700, 2016.

MASTER OF NATURAL SCIENCE (APPLIED CHEMISTRY) THESES DIRECTED

Danny Bryant, graduated May 2003
Goutham Devarapally, graduate May 2011
Claudette Gilman, graduated December 2010
Shravani Gouravaram, graduated May 2011
Carla Jo Haas, graduated May 2000
Abinav Macharam, graduated December 2011
Ravi Nalla, graduated May 2012
Sindhu Punnam, graduated August 2012
Kristen Schug, graduated May 2002
Jennifer Smalley, graduated May 2006

Tim Stroder, graduated August 2006
Venu Sunkavalli, graduated December 2013

COURSES TAUGHT

Southeast Missouri State University (1992-present)

CH180 Chemistry in Our World
CH081 Basic Principles of Chemistry Lab
CH085 General Chemistry Lab (formerly called General Chemistry I Lab)
CH186 Foundations of Inorganic Chemistry (formerly called General Chemistry II)
CH187 Inorganic Chemistry and Qualitative Analysis Lab (formerly called Qualitative Analysis)
CH271 Foundations of Analytical Chemistry (formerly called Quantitative Analysis)
CH340 Essentials of Organic Chemistry (laboratory only)
CH342 Organic Chemistry Lab II
CH350 Environmental Chemistry (team-taught with other faculty; now numbered as CH450/CH650/EV450/EV650)
CH39X Undergraduate Research
CH401 Independent Study in Chemistry
CH420/CH620 Forensic Chemistry (team-taught with other faculty)
CH475 Analytical Chemistry (now called Chemical Instrumentation)
CH498 Professional Presentation in Chemistry
CH563 Inorganic Chemistry (now called Advanced Inorganic Chemistry)
CH575 Chemical Instrumentation
CH608/CH609 Seminar
CH675 Topics in Analytical Chemistry (team-taught with other faculty)
CH689 Problems in Chemistry
CH69X Research
EV201/EV401 Environmental Science Seminar (team-taught with other faculty)

University of Indianapolis (1991-1992)

Elements of Chemistry and Physics

PROFESSIONAL SERVICE

Southeast Missouri State University

Department of Chemistry Committees and Service (*Serve or Served as Chairperson)

Analytical Chemistry Search Committee (ad hoc), 2002-2003*
Assessment Committee, 2003-2018*
Budget and Space Committee, 1992-2018*
Chem Bowl (Titration Competition Coordinator), 1992-2006
Chemical Education Faculty Search Committee (ad hoc), 2006-2007*
Chemistry Program Advisor, 1992-2018
Co-Advisor of the Delta Delta Chapter of Alpha Chi Sigma, 2017-2018
Co-Advisor of Student Affiliates of the American Chemical Society, 1994-2000
Computer, 2003-2004
Curriculum, 2003-2004

Dual Credit Liaison, 2007-2016
Foundations of Analytical Chemistry Course Development Committee (ad hoc), 2009-2010*
Foundations of Inorganic Chemistry Course Development Committee (ad hoc), 2009-2010*
Freshman Program Committee, 2004-2005, 2006-2007, 2008-2009, 2011-2012, 2014-2015, 2017-2018
General Chemistry Course Revision Committee (ad hoc), 2009-2010
Graduate Committee, 2000-2002
Inorganic Chemistry Search Committee, 1993-1994
Instructor Search Committee (Main Campus) (ad hoc), 2005-2006*
Instructor Search Committee (Main Campus) (ad hoc), 2006-2007*
Instructor Search Committee (Main Campus) (ad hoc), 2007-2008*
Instructor Search Committee (Regional Campuses) (ad hoc), 2005-2006*
Forensic Chemistry Search Committee (ad hoc), 2010-2011*
Lab Assistant/Student Worker Coordinator, 2009-2018
Medical Laboratory Science/Medical Technology Program Advisor, 1992-present
Medical Laboratory Science Program Coordinator, 2013-2018
Physical Chemistry Search Committee (ad hoc), 2016*
Pre-Pharmacy Club Faculty Advisor, 2005-2006
Pre-Pharmacy Program Advisor, 2010-present
Pre-Pharmacy Program Coordinator, 2010-2013, 2016-2018
Program Review Committee, 2002-2018*
Safety Committee, 1998-2001, 2014-2018*
Scholarship and Awards Committee, 1992-1993, 1997-2003
Strategic Retention Committee (ad hoc), 2016-2017*

College Committees (*Serve or Served as Chairperson)

Senior Administrative Assistant Search Committee (ad hoc), 2015
Associate Dean Search Committee (ad hoc), 1999-2000
Computer Science Chairperson Search Committee (ad hoc), 2016-2017*
CSTA/COSM Council, 1997-1999, 2002-2018
CSTA/COSM Honors Program Committee, 1997-2009
Environmental Science Curriculum Committee (ad hoc), 1996-1997
Environmental Science Program Committee, 1998-2009
Environmental Science Search Committee (ad hoc), 2014-2015
Environmental Science Survey Committee (ad hoc), 1996*
Environmental Science Web Page Committee, 1998-1999
Grade Appeal Committee for Biology Department (ad hoc), 2012*
Grade Appeal Committee for Mathematics Department (ad hoc), 2011*
Heartland's Alliance for Minority Participation Committee, 1996-1998
Minor in Sustainability Curriculum Committee (ad hoc), 2010-2011
M.N.S. Admission Requirements Committee, 2003-2004*
M.N.S. Oversight Steering Committee, 2015-2018
Professional Science Masters Committee (ad hoc), 2004-2005
Scholarship Committee, 2010-2013

Student Learning Outcomes Committee (ad hoc), 2012

University Committees

Dual Credit Liaison Committee, 2015-2016
Faculty Senate, 1993-1996
Faculty Senate Alternate, 1999-2001
Summer Review Committee (ad hoc), 2011-2012
Sustainability Committee, 2009-2017
University Athletic Committee, 2000-2003

Other Service

American Chemical Society
Chair-Elect, Southern Illinois Section, American Chemical Society, 2000-2001
Chair, Southern Illinois Section, American Chemical Society, 2001-2002
Past-Chair, Southern Illinois Section, American Chemical Society, 2002-2003
External Reviewer, Department of Chemistry, University of Tennessee-Martin, Martin, TN, 2004
Instructor Search Committee (Southeast Hospital), 2006-2007
Missouri Junior Academy of Science Meeting Judge, 1999
Prepared the flash paper used in the ceremony to retire the Show Me Center mortgage on June 30, 2004.
Southeast Hospital CONHS MLS Program Advisory Board, 2013-2018
Southeast Missouri Regional Crime Lab Technician Search Committee (now called the Missouri State Highway Patrol Troop E Crime Lab), 2006-2007
Southeast Missouri Regional Science Fair Judge, 1993, 2005, 2006, 2008, 2010-2015, 2018

COMMUNITY SERVICE

Cubmaster, Pack 4021, Cape Girardeau, MO, 1999
Cubmaster, Pack 4020, Cape Girardeau, MO, 2000-2003
Assistant Scoutmaster, Troop 4021, Cape Girardeau, MO, 2003-2008

SELECTED ACCOMPLISHMENTS AND DUTIES AS DEPARTMENT CHAIRPERSON

Chaired a department with 10-12 faculty members, 2 staff members, and a total annual budget (not including salaries) of approximately \$100,000 (operations, student labor, equipment, professional development) for 16 years.

Coordinated the department's annual "big order" with the departmental stockroom manager each spring between 2002-2018 to order the chemicals, supplies, and equipment needed to maintain the academic quality of our lab courses.

Coauthored the successful federal earmark proposal submitted to Washington, D.C. for a forensic education lab to support the forensic programs in the department; funded for \$700,000.

Coauthored the successful “Academic Research Infrastructure (Recovery Act) Chemistry and Physics Faculty Research Lab Renovations” grant proposal to the National Science Foundation; funded for \$1,300,000.

Informed the administration of the department’s instrumental needs and worked with the COSM/CSTA dean to find financial resources for the purchase of the following instruments: NMR spectrometer, inductively coupled plasma-optical emission spectrometer, atomic absorption spectrometer, UV-visible spectrometer, gas chromatograph, X-ray diffractometer, and an EPR spectrometer. Coordinated the purchasing of these instruments.

Worked with Trudy Lee (University Advancement), Dr. Greg Davis (Eli Lilly), and Dr. Chris McGowan (former dean, College of Science and Mathematics) on a moderately successful fundraising drive for the Department of Chemistry.

Coordinated the renovation plans for the organic chemistry and general chemistry laboratories for the department; the academic labs each underwent \$700,000 renovations during the summers of 2007 and 2008. Coordinated the renovation plans for the remainder of the department’s facilities during the “global” renovation of Magill Hall which occurred between 2011 and 2013.

Initiated, coordinated, and participated in changes to the chemistry curriculum leading to the development of seven total officially transcribed options under the B.S. in Chemistry and B.A. in Chemistry degree programs to better allow students to tailor their educations to their professional goals: B.S. in Chemistry (American Chemical Society Certified Chemistry, Biochemistry, DNA Analysis, and Forensic Chemistry) and B.A. in Chemistry (Business, Chemistry, and Forensic Science). Coordinated and spearheaded the approval process through COSM (now CSTA) Council, Academic Council, and the Coordinating Board for Higher Education.

Proposed and developed the B.S. in Chemistry (Business option) in consultation with the former dean of the College of Business at Southeast Missouri State University, i.e. Dr. Gerald McDougall.

Completed the American Chemical Society annual certification reports for the department each year since 2002, and the periodic reports in 2004 and 2011.

Initiated, coordinated, and participated in changes to the chemistry curriculum in response to changes to the American Chemical Society Guidelines and Evaluation Procedures for Bachelor’s Degree Programs. This process resulted in substantial changes to the undergraduate degree programs which took effect during the fall 2011 semester.

Planned and scheduled classes for the department, as well as assigned faculty to their teaching duties, each semester between 2002 and 2018. As chair, I prepared the course schedules each semester and gave them to the administrative assistant to enter into Banner.

Assigned graduate assistants to their teaching and other duties, and also recruited and assigned undergraduate student workers to their duties each semester between 2010 and 2018.

Wrote the department's budget request each year that it was requested by the COSM/CSTA dean.

Wrote the program review documents for our undergraduate programs, i.e. chemistry and medical technology/medical laboratory science, in 2003-2004, 2008-2009, and 2016-2017, and the extraordinary program review for the MNS in Applied Chemistry program in 2017. This was done in consultation with departmental faculty. Wrote the response to the 2003-2004 program review in 2006-2007.

Wrote the assessment reports for the department each year that they were required by the Southeast administration, i.e. 2002-2009.

Actively participated in every faculty search since 2002, chairing some search committees, completing all paperwork required for the search, writing the employment ads, posting the employment ads to Chemical and Engineering News (until HR took over this function), arranging on campus and phone interviews and setting up interview schedules in some cases, and negotiating the offers of employment with candidates.

Performed a number of successful searches to fill 1-year positions, i.e. emergency hires, upon the resignations or retirements of departmental faculty which involved sending out position ads to a large number of Chemistry Departments throughout Missouri and other states which offer PhD degree programs, reviewing applications, contacting applicants, and personally conducting interviews in person and on the phone.

Presented a brief seminar about Department of Chemistry academic programs at the College of Science, Technology, and Agriculture Informational Session for Southeast admissions counselors and college advising staff each year between 2012 and 2016.

Actively involved in recruitment of students both as a chair and faculty member, including meeting with prospective students and their parents or guardians, developing recruitment flyers with information about our undergraduate programs and sending them to high schools around Missouri and elsewhere, representing the department at Show Me Days events and contacting prospective students in attendance afterwards via email, and working with University Marketing to develop and print flyers about the MNS in Applied Chemistry program that were mailed to a large number of undergraduate institutions.

Wrote the charges for departmental standing committees and assigned faculty to committees each academic year; assigned faculty on a voluntary basis to ad hoc committees.

Managed, scheduled, advertised and/or coordinated a number of events for the department, including the following examples: Medical Laboratory Science Informational Seminars for MLS majors and others interested in learning about this field as a career choice, as well as the clinical year program; MilliporeSigma (Sigma Aldrich) Informational and Recruitment

Seminars for Chemistry and Biology majors interested in learning about career opportunities at MilliporeSigma; departmental awards ceremonies to present student awards to deserving students; departmental seminars with both speakers from Southeast as well as speakers from other universities.

WORKSHOPS AND MEETINGS ATTENDED (SINCE 2002)

American Chemical Society, Midwest Regional Meeting, Columbia, MO, November 6, 2003

Midwest Forensic Research Consortium (MFRC) Annual Meeting, Iowa State University, Ames Iowa, June 23, 2005

Midwestern Forensic Science Educators Meeting, Iowa State University, Ames, Iowa, June 24, 2005

CCAS Department Chairs Seminar ("Chairs Camp"), Kansas City, MO, July 12-14, 2007

"Department Chairs' Balancing Acts: Managing Stress, Time, and Conflict", Pre-Conference Workshop, 25th Annual Academic Chairpersons Conference, Orlando, FL, February 5th, 2008

25th Annual Academic Chairpersons Conference, Orlando, FL, February 6–8, 2008

Midwestern Universities Analytical Chemistry Conference (MUACC), Indiana University, Bloomington, IN, November 13-15, 2008

26th Annual Academic Chairpersons Conference, Orlando, FL, February 11th – 13th, 2009

27th Annual Academic Chairpersons Conference, Orlando, FL, February 11th – 13th, 2010

"Collegiality: Chair's Role in Facilitating a Civil Department", Pre-Conference Workshop, 28th Annual Academic Chairpersons Conference, Orlando, FL, February 9th, 2011

28th Annual Academic Chairpersons Conference, Orlando, FL, February 10th – 11th, 2011

Professional Science Master's Summit, Columbia, MO, April 17, 2012

30th Annual Academic Chairpersons Conference, San Antonio, TX, February 6th – 8th, 2013

30th Annual Academic Chairpersons Conference, San Antonio, TX, February 6th – 8th, 2013

"Be an 'Appy' Department Chair", Pre-Conference Workshop, 33rd Annual Academic Chairpersons Conference, Charleston, SC, February 3, 2016

Clinical Lab Science Advisors' Meeting, St. Luke's Hospital, Kansas City, MO, September 20, 2013

33rd Annual Academic Chairpersons Conference, Charleston, SC, February 4th – 5th, 2016

Council of Independent Colleges (CIC) Workshop for Southeast Missouri State University
Department Chairs, Southeast Missouri State University, Cape Girardeau, October 8th-9th,
2013

Clinical Lab Science Advisors' Meeting, North Kansas City Hospital, Kansas City, MO,
September 19, 2014

34th Annual Academic Chairpersons Conference, New Orleans, LA, February 8th – 10th, 2017

Inclusive Leader 360 Assessment and Executive Development Program Workshop on April 28,
2017, Southeast Missouri State University

ACADEMIC AWARDS AND HONORS:

Arthur J. Schmidt Fellow, Marquette University, 1989-1990
American Institute of Chemists Student Award Certificate, 1983
Who's Who Among Students in American Universities and Colleges, 1983

OTHER RELATED EXPERIENCE AND PROFESSIONAL ACTIVITIES (SELECTED)

- Co-developed or revised six courses at Southeast: CH182 Chemistry for the Applied Health Sciences, CH186 Foundations of Inorganic Chemistry, CH187 Inorganic Chemistry and Qualitative Analysis Lab, CH271 Foundations of Analytical Chemistry, CH350 Environmental Chemistry and CH675 Topics in Analytical Chemistry
- Reviewer for 3 McGraw-Hill, 1 Prentice Hall, and 1 Houghton-Mifflin General Chemistry textbooks
- Reviewer for articles in Bioelectrochemistry, Electrochimica Acta, European Journal of Inorganic Chemistry, Journal of Organic Chemistry, Journal of Chemical Education, Journal of Soil and Sediment Contamination, Molbank, and Molecules
- Served on the Master of Natural Science thesis committees for 36 graduates in Chemistry, Biology, and Mathematics since 2000
- Working knowledge of Moodle, Microsoft Word, Microsoft Powerpoint, and Microsoft Excel

REFERENCES

- 1) Dr. Chris McGowan, Dean (Retired)
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- 2) Dr. Mike Rodgers, Professor
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- 3) Dr. John Kraemer, Professor and Director of Environmental Science
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