

Melody Jewell

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EDUCATION

Ph.D. in Paper Science and Engineering College of Natural Resources/University of Minnesota, St. Paul	December 2002 GPA 3.8
M.S. in Paper Science and Engineering College of Natural Resources/ University of Minnesota, St. Paul	June 1999 GPA 3.8
B.A. in Chemistry College of Liberal Arts/ University of Minnesota, Minneapolis	June 1997 GPA 3.5
B.S. in Biology College of Biological Sciences/University of Minnesota, St. Paul	June 1997 GPA 3.5

EDUCATIONAL EXPERIENCE

AP Reader, Educational Testing Services <ul style="list-style-type: none">Responsible for following a rubric to score essay-type questions on AP Chemistry exams	May 2014 -present
Accuracy Reviewer, Pearson Education Inc. <ul style="list-style-type: none">Review new and revised editions of textbooks and study guides for accuracy	2012-present
Lecturer, South Dakota State University; Dept. of Chemistry & Biochemistry <ul style="list-style-type: none">Lecturer for various 100-level courses including regular instruction of Chemistry Survey (106) and General Chemistry I (112) and occasional instruction of Survey of Organic and Biochemistry (108) and General Chemistry II (114)Responsible for lectures and lab sections (teaching, setup/preparation, and grading) for each classHold office hours (10 per week), review sessions, student tutoring and informal student advisingParticipate in departmental activities	August 2012 - present
Assistant Professor, South Dakota State University; Dept. of Chemistry & Biochemistry <ul style="list-style-type: none">Lecturer for various 100-level courses including regular instruction of Chemistry Survey (106) and General Chemistry I (112) and occasional instruction of Survey of Organic and Biochemistry (108) and General Chemistry II (114)Responsible for lectures and lab sections (teaching, setup/preparation, and grading) for each classHold office hours (10 per week), review sessions, student tutoring and informal student advisingParticipate in departmental activities	Jan'04 – May'12 & Jan-June'03
Adjunct Instructor, Alverno College; Dept. of Physical Sciences <ul style="list-style-type: none">Science 119 – Foundations for Natural ScienceResponsible for lectures and laboratory exercises for 2 sectionsHold office hours and review sessions	August 2003 – December 2003
Chemistry Tutor; University of Wisconsin – Milwaukee <ul style="list-style-type: none">Tutor all levels of chemistry including general, organic and analytical approximately 10 hours per week	September-December 2003
Instructor, University of Minnesota; Dept. of Wood and Paper Science <ul style="list-style-type: none">WPS 5310, Pulp and Paper LaboratoryDirected group work in the lab involving:<ul style="list-style-type: none">Refining of pulp and examination of resulting pulp and paper physical propertiesRepulping mixed office waste, removal of ink particles and resulting paper propertiesAddition of cationic starch to pulp as a wet-end additive and evaluation of resulting paper propertiesMeasurement of fine particles in pulp and evaluation of a retention aid in fines retentionHeld weekly office hours to answer student questions and explain basic concepts of laboratory exercisesAdministered examinations to test students knowledge of concepts learned throughout the classEvaluated student participation	Spring 1999

Teaching Assistant, University of Minnesota; Dept. of Wood and Paper Science**Fall 1999-2001**

- WPS 4305 Pulp and Paper Technology for 3 semesters
- Directed group work in the lab involving
 - Beating of pulp and examination of resulting pulp/paper physical properties
 - Repulping mixed office waste, removal of ink particles and evaluation of paper properties
 - Addition of cationic starch to pulp as a wet-end additive and evaluation of resulting paper properties
 - Measurement of fine particles in pulp and evaluation of a retention aid in fines retention
 - Evaluation of addition of a sizing agent on permeability of paper to liquid
- Helped produce a CD-ROM of laboratory exercises to accompany long-distance education course
- Evaluated student learning and writing ability through reading reports on various laboratory exercises
- Held weekly office hours to answer student questions from homework and laboratory exercises
- Occasional lecturer for class material in professor's absence

Teaching Assistant, University of Minnesota; Dept. of Wood and Paper Science**Spring 2000-2002**

- WPS 4362 Pulping and Bleaching T.A. for 3 semesters
- Directed group work in the lab involving
 - Kraft pulping and oxygen bleaching of hardwood
 - Refiner mechanical pulping of hardwood
 - Determination of lignin content through iodometric titration
 - Determination of cellulose depolymerization through viscosity measurements
 - Hydrogen peroxide and chlorine dioxide bleaching of pulp
 - Determination of fiber length of different pulps through fiber fractionation techniques
- Evaluated student learning and writing ability through reading reports on various laboratory exercises
- Held weekly office hours to answer student questions from homework and laboratory exercises
- Occasional lecturer for class material in professor's absence

Academic Service Center Coordinator, Territorial Hall; University of Minnesota**Fall 1995 - Spring 1997**

- Peer tutoring primarily in the sciences and mathematics (3 years)
- Hire, supervise, train and evaluate tutoring staff
- Responsible for planning and implementing educational/academic programs

RESEARCH EXPERIENCE**International Summer Research Intern, UPM-Kymmene Oy; Lappeenranta, Finland****Summer 2000**

- Research in the area of bleaching mechanical pulp (acid peroxide and dithionite)
- Research in the area of silicate scaling and peroxide residual as related to the on-site pulp and paper mills

Ph.D. Graduate Research Assistant, University of Minnesota**Fall 1999-Fall 2002**

- Ph.D. research involves improving the selectivity of oxygen bleaching of Kraft pulp using radical scavengers.
- Various contracted pulp and paper testing for several noted companies
- Pulping and bleaching work with addition of phosphonates

Independent Research Consultant, Solutia Inc.; St. Louis, MO**Summer 1998-Spring 1999**

- Research involved evaluating the use of phosphonates in the Kraft pulping process.
- The project culminated in a written report and oral presentation at company headquarters.
- The project outcome resulted in further collaborations with the University on other projects.

M.S. Graduate Research Assistant, University of Minnesota**Fall 1997- Spring 1999**

- M.S. research involved developing environmentally friendly pulping and bleaching methods to use wheat straw for paper production
- Responsible for training new lab assistants and student workers

PUBLICATIONS and PRESENTATIONS

Publications

- 1) "Chemistry 106L: Chemistry Survey Lab"; 10th edition; Hirko, Ron and **Jewell, Melody**; bluedoor: Minnetonka, MN, 2016.
- 2) "Chemistry 106L: Chemistry Survey Lab"; 9th edition; Hirko, Ron and **Jewell, Melody**; bluedoor: Minnetonka, MN, 2015.
- 3) "Chemistry 106L: Chemistry Survey Lab"; 8th edition; Hirko, Ron and **Jewell, Melody**; bluedoor: Minnetonka, MN, 2014.
- 4) "Chemistry 106L: Chemistry Survey Lab"; 7th edition; Hirko, Ron and **Jewell, Melody**; bluedoor: Minnetonka, MN, 2013.
- 5) "Chemistry 106L: Chemistry Survey Lab"; 6th edition; Hirko, Ron and **Jewell, Melody**; bluedoor: Minnetonka, MN, 2012.

Oral Presentation: Jewell; "Addressing student misconceptions in a first semester GOB course"; 24th Biennial Conference on Chemical Education (BCCE): University of Northern Colorado, Greeley, Colorado; July 31, 2016.

Oral Presentation: Jewell, Melody; "The evolution of the flipped classroom in a first semester GOB course"; 2016 BCCE: University of Northern Colorado, Greeley, Colorado; August 3, 2016.

Oral Presentation: Jewell, Melody and Williams, Marla; "Examining Factors that Influence Conceptual Retention throughout a Two-semester GOB course: Part 1"; 23rd Biennial Conference on Chemical Education (BCCE): Grand Valley State University, Grand Rapids, Michigan; August 5, 2014

Oral Presentation: Madsen, Sara and **Jewell, Melody**; "Examining Factors that Influence Conceptual Retention throughout a Two-semester GOB course: Part 2"; 2014 BCCE: Grand Valley State University, Grand Rapids, Michigan; August 5, 2014

Poster Presentation: Jewell, Melody; "The Flipped Classroom Experience in Chemistry 106"; Spring 2014 Conference; SDSU – May 14, 2014

Oral Presentation: Jewell, Melody; "The Flipped Classroom Experience in Chemistry 106"; 2014 South Dakota Science Academy Meeting: Educational Symposium; Best Western Ramkota Hotel – Rapid City; March 29, 2014

Poster Presentation: Jewell, Melody; "The Flipped Classroom Experience in Chemistry 106"; Food and Faculty Showcase; SDSU – February 26, 2014

Oral Presentation: Jewell, Melody. "Utilizing Feedback in On-Line Quizzes to Improve Student Learning." 22nd Biennial Conference on Chemical Education (BCCE) July 29-August 2, 2012, Penn State University in State College, PA.

Oral Presentation: Jewell, Melody. "Using immediate feedback to promote student learning and retention in an on-line chemistry lecture." 2012 BCCE July 29-August 2, 2012, Penn State University in State College, PA.

Poster Presentation: Jewell, Melody. "Utilizing Feedback in On-Line Quizzes to Improve Student Learning and Retention." The Teaching Professor Conference; May 20-22, 2011, Sheraton Atlanta Hotel in Atlanta, GA.

Poster Presentation: Jewell, Melody. "Utilizing Feedback in On-Line Quizzes to Improve Student Learning and Retention." SoTL Commons Conference; March 7-9, 2011, Georgia Southern University.

Oral Presentation: Jewell, Melody. "Nuclear Power and the Crisis in Japan". OLLI (Osher Lifelong Learning Institute) Lecture, April 19, 2011.

Poster Presentation: Jewell, Melody. "Utilizing Feedback in On-Line Quizzes to Improve Student Learning and Retention." SDSU Faculty Teaching Showcase; November 16, 2010.

Oral Presentation: Jewell, Melody. "Nuclear Energy: Nuclear Chemistry". OLLI (Osher Lifelong Learning Institute) Lecture, November 5, 2009.

Doctoral Thesis: Jewell, Melody. "The Advancement of Oxygen Bleaching by Using Chemical Additives to Improve Pulp Properties." University of Minnesota, December 2002.

Master's Thesis: Jewell, Melody. "Sulfur-Free Pulp and Chlorine-Free Bleaching of Agricultural Residues for Paper Production." University of Minnesota, June 1999.

Poster Presentation: Jewell, Melody and Tschirner, Ulrike. “Sulfur-Free, Chlorine-Free Production of Paper from Agricultural Residues.” 6th Annual Environmental Science and Engineering Conference: Balancing Progress and the Environment, April 6-7, 1998, University of Minnesota.

Refereed Conference Proceedings

- 1) **Written paper and oral presentation: Jewell, Melody** and Tschirner, Ulrike. “Improved Selectivity of Oxygen Bleaching Through Use of Chemical Additives.” 2001 TAPPI Pulping Conference, November 4-7, Sheraton Seattle Hotel and Towers in Seattle, WA.
- 2) **Written paper and poster presentation: Jewell, Melody** and Tschirner, Ulrike. “Sulfur-Free Pulping and Chlorine-Free Bleaching of Agricultural Residues for Paper Production.” 1998 TAPPI International Engineering Conference Poster Book, September 13-17, Fontainebleau Hilton Hotel in Miami Beach, FL: pages 13-19.
- 3) **Co-authored paper: Goel, Ankur, Jewell, Melody**, Tschirner, Ulrike and Ramaswamy, Shri. Comparison of refining response of Soda AQ and Organosolv Wheat Straw pulps with traditional wood pulps.” 2000 Tappi Pulping/Process Product Quality Conference, November 5-8, 2000, Sheraton Boston in Boston, MA.

CERTIFICATES

- SDSU CETL Professional Development Certificate; December, 2015
- Title IX training certificate “Bridges: Building a Supportive Community”; October, 2015
- CITI Training Human Subjects Research and Responsible Conduct of Research; March, 2015
- Certified Peer Observer for SDSU; December, 2012

CONFERENCES ATTENDED

- SDSU Summer SoTL Symposium; August 10, 2015
- SDSU Peer Observation Short Course; May 15, 2015
- SDSU Spring Conference workshop “Effective Pedagogy for Enhanced Student Engagement in an Active Learning Classroom and in Large Classrooms”; May 13, 2015
- SDSU Spring Conference workshop “Create an Engaging Learning Environment: FLIP a Lesson”; May 12, 2015
- SDSU Fall Conference: The New Science of Learning and Teaching Students How to Learn – August 20, 2014
- 23rd Biennial Conference on Chemical Education; Grand Valley State University; August 3-7, 2014
- SDSU Spring Conference: Get Students to Focus on Learning Instead of Grades: Metacognition is the Key! and Approaches for Teaching Metacognitive Strategies to Individuals and Groups with Dr. Saundra Yancey McGuire – May 14, 2014
- 2014 South Dakota Science Academy Meeting; Best Western Ramkota Hotel – Rapid City; March 28-29, 2014
- McGraw-Hill Chemistry Digital Workshop: The Future of On-Line Learning – St. Louis, MO – March 6-8, 2014
- Fall Conference - Impact 2018: Empowering Collaborative Teaching and Research; SDSU; August 21, 2013
- Assessment Strategies for the Flipped Classroom; Magna Online Seminar; SDSU; August 13, 2013
- AL Cloud Spring Mini-Conference: Flipping the Classroom; SDSU; May 10, 2013
- Chemical Hygiene and Laboratory Safety Class; SDSU; March 5, 2013
- Effective Teaching and Effective Assessment of Teaching Workshop; SDSU; December 3, 2012
- The Flipped Classroom: Rethinking the Way You Teach: Magna Online Seminar presented at SDSU; August 23, 2012
- Fall Conference: Academic Quality – A Dialogue for Achieving Academic Excellence; SDSU; August 22, 2012
- 22nd Biennial Conference on Chemical Education; The Pennsylvania State University; July 29-August 2, 2012
- The Teaching Professor Conference; Washington D.C. ; June 1-3, 2012
- Food and Faculty Showcase; SDSU; March 28, 2012
- Spring Teaching and Technology Conference; SDSU; January 10, 2012
- Saturday Scholars Program; College of Education and Human Development - University of Minnesota; November 5, 2011
- AL Cloud Teaching and Technology Mini Conference; SDSU; September 7, 2011
- The Teaching Professor Conference; Atlanta, GA; May 20-22, 2011
- SoTL Commons Conference; Georgia Southern University; March 9-11, 2011
- Fall Faculty Development Seminar; SDSU; August, 2010
- Fall Faculty Development Seminar; SDSU; August, 2009
- The Teaching Professor Conference; Washington, D.C.; June 5-7, 2009
- Collaboration for the Advancement of College Teaching and Learning Conference; Bloomington, MN; February 13-14, 2009
- Fall Faculty Development Seminar; SDSU; August, 2008

- Fall Faculty Development Seminar; SDSU; August 2007
- POGIL Symposium; University of St. Thomas; St. Paul, MN; June 23-25, 2005
- Benjamin Cummings Strategies for Success Workshop; University of Minnesota; April 4, 2004

COMMITTEE WORK

- 2015-2016: member of the search committee for CBC Department Head
- 2014: Member of the search committee for LATI chemistry faculty member
- 2012-2013: Member of the departmental Chemical Education faculty search committee
- 2011: Chair of the search committee for STI chemistry faculty member
- 2010: Member of the departmental Chemical Education faculty search committee
- 2008 - 2009: Member of the departmental CLS Director Search Committee.
- 2007 - 2008: SDSU HLC-NCA Self-Study - member of the Connected Organization Cross-Cutting Theme Sub-Committee. As part of this committee, I participated in group meetings, email discussions, literature review of articles related to engagement and connectedness, and revisions of the group paper.
- 2007-2008: Member of the departmental Biophysical faculty search Committee.
- 2007 – present: Departmental Curriculum Committee. We have been charged with reviewing tasks related to curriculum.

PROFESSIONAL MEMBERSHIPS

2004 – present Member of the ACS

1997-present Member of TAPPI (Technical Association of the Pulp and Paper Industry)