

**Dr. Jeffrey Tang**  
**Associate Dean, College of Integrated Science and Engineering**  
**Professor, School of Integrated Sciences**  
**James Madison University**  
[tangid@jmu.edu](mailto:tangid@jmu.edu)

**Employment**

Associate Dean, College of Integrated Science and Engineering, 2018-present  
Interim Department Head, Department of Integrated Science and Technology, 2016-2018  
Associate Dean, College of Integrated Science and Engineering, 2012-2016  
Assistant Department Head, Integrated Science and Technology, James Madison University, 2010-2013.  
Associate Professor, Integrated Science and Technology, James Madison University, 2010-present.  
Assistant Professor, Integrated Science and Technology, James Madison University, 2006-2010.  
Visiting Assistant Professor, Integrated Science and Technology, James Madison University, 2005-2006.  
Writing Instructor, University of Pennsylvania, 2002-2005.

**Education**

Ph.D., History and Sociology of Science, University of Pennsylvania, Dec. 2004.  
Dissertation: Sound Decisions: Systems, Standards, and Consumers in American Audio Technology, 1945-1975  
Supervisor: Ruth Schwartz Cowan (History & Sociology of Science, University of Pennsylvania)

M. A., History and Sociology of Science, University of Pennsylvania, Aug. 1999.  
Thesis: A Standard Edison Story: Compatibility Standards in Thomas Edison's Development of the Phonograph

M. Phil., Economic and Social History, University of Oxford, June 1996.  
Thesis: Timely Success: The Role of Locational Lock-in and Path-Dependence in the Rise of the South-west Lancashire Watchmaking Industry

B.A., Economics, Northwestern University, June 1994.

**Publications and Proceedings**

“Developing Three-Dimensional T-shaped Undergraduates: A Case Study in Undergraduate Curriculum Development for Holistic Problem Solvers,” (under review), Teaching in Higher Education, co-authored with Shannon Conley,

Michael Deaton, Mary Handley, Robert Kolvoord, Amanda Biesecker, and Robert Brent.

- Tang, J. "How Do We Know?: What Intelligence Analysis Can Learn from The Sociology of Science." *Intelligence and National Security*. May 2017 (32:5, 663-674). DOI: 10.1080/02684527.2017.1311473
- Tang, J. "Oil and Gas Boom and The Future of Energy in the United States." *The CIP Report*. June 2013 (11: 2-5)
- Tang, J. "Building an Integrated Science and Technology Program at James Madison University" in *The College Curriculum: A Reader*, ed. J. Devitis. 2013 Peter Lang Publishing.
- Tang, J. "Beyond the Producer/Consumer Divide: Expert Consumers in American Home Audio, 1945-1975" in *Destiny of Choice?: New Directions in American Consumer History*, D. Blanke and D. Steigerwald, eds. 2013. Rowman & Littlefield-Lexington Books.
- Baker, S.C., Tang, J.D., Dupal, A., Fulcher, K.H., Hunter, C.A., and Lewis, K.L. "Balancing in the Middle: Advice for Assistant Department Heads, Program Directors, and Other Mid-Level Leaders." *The Department Chair*. Winter 2013. (23: 15-18).
- McGraw, D.K., Biesecker, A.G., Tang, J. D., Benton, M. C., and Saunders, D., "Who Teaches Ethics? An Inquiry into the Nature of Ethics as an Academic Discipline." *Teaching Ethics*. Fall 2012. (13: 129-140).
- Tang, J.D. and Bachmann, C.G. "No Silver Bullet: Options and Challenges in Energy for Transportation." *CIP Report*. January 2012. (2-4, 18).
- Bachmann, C.G., Tang, J.D., Kauffman, M. and Puffenbarger, C. "Engineering for Non-Engineering Schools: A Hands-On Educational Curriculum That Addresses the Need for Renewable Energy through Undergraduate Research and Applied Science," *Proceedings of the American Society for Engineering Education Annual Conference*, 2008.
- Tang, J.D. "Review of David Morton's *Off the Record: The Technology and Culture of Sound Recording in America*." *Business History Review*. Autumn 2000. (74: 529-31).

### **Grants and Funding**

- "Cultivating the Engaged University: New Structures for Empowering Women and Underrepresented Minority Faculty in STEM." (Co-PI) NSF ADVANCE. \$3,944,446. NOT funded. Jan. 2016.
- "Investigating obstacles and exploring opportunities for women in STEM careers at a rural predominately undergraduate institution." (Co-PI) NSF ADVANCE – IT Catalyst. Proposal # 1409410. \$200,000. NOT funded. Nov. 2014.
- "Energy to Educate: Illuminations Project," (PI) \$50,000, Constellation Energy E2 grants. NOT funded. Spring 2012.

Shenandoah Valley Energy Efficiency Project (co-PI for JMU), \$1.57 million, U.S. Department of Energy, Energy Efficiency and Conservation Block Grant. NOT funded. Dec. 2009.

“Paving the Way with Propane: The AutoGas Corridor Development Program” (co-PI), U.S. Dept. of Energy, \$8.6 million. FUNDED. October 2009.

“Shenandoah Valley as a National Demonstration Project Achieving 25 Percent Renewable Energy by the Year 2025,” (co-PI) \$750,000, Congressional appropriation. FUNDED. October 2009.

“Proposal for Senior Seminar and Capstone Courses,” (researcher) Analytic Training Research Grant, Institute for National Security Analysis, \$19,000. FUNDED. Summer 2009.

University National Parks Educational Partnership Program (PI), \$19,550. FUNDED. April 2009.

National 25x’25 mini-grant for Commonwealth of Virginia (PI), \$4,000. FUNDED. April 2009.

College of Integrated Science and Technology mini-grant (co-PI), James Madison University, \$1,000. FUNDED. April 2009.

“Workbook for Perspectival Thinking,” Analytic Training Research Grant (researcher), Institute for National Security Analysis, \$8,500. FUNDED. Spring 2009.

“Proposal for Contextual Methods Cell,” Analytic Training Research Grant (researcher), Institute for National Security Analysis, \$6,300. FUNDED. Summer 2008.

University of Pennsylvania, School of Arts and Sciences Travel Grant, \$500. FUNDED. 2004.

Society for the History of Technology, Graduate Student Travel Grant, \$500. FUNDED. 2004.

### **Conference Presentations (competitive and peer reviewed unless otherwise noted)**

“Conversation: Cultivating and Assessing Holistic Problem Solving Skillsets: Challenges and Opportunities,” Conference on Higher Education Pedagogy, Virginia Tech, February 14-16, 2018. Co-presenter with Shannon Conley and Robert Brent; Co-authored with Shannon Conley, Michael Deaton, Mary Handley, Bob Kolvoord, Brent Robert, and Amanda Biesecker.

“Defining the STEM of the T: What Counts as Depth?” T-Summit in Washington, D.C. March 20-21, 2016.

“Cultivating the Engaged University: New Structure for Empowering Women and Underrepresented Minority Faculty.” JMU Diversity Conference, March 16, 2016. Co-presented with Melissa Aleman, Cara Meixner, Joanna Mott, and Yvonne Harris.

- “How do we know?: What Intelligence Analysis Can Learn from The Sociology of Science.” International Studies Association annual conference. New Orleans, LA. Feb. 19, 2015.
- “Tackling the Problem of Problem-Based Learning,” Fifth Annual Conference on Higher Education Pedagogy, Virginia Tech Center for Instructional Development and Educational Research, Blacksburg, VA, February 2013. Co-authored with Robert Brent, Michael Deaton, Mary Handley, Karim Altaii, and Paul Goodall.
- “Incorporating Habits of Mind into Science and Technology Curricula,” Fourth Annual Conference on Higher Education Pedagogy, Virginia Tech Center for Instructional Development and Educational Research, Blacksburg, VA, February 2012. Co-presented with Robert Brent and Michael Deaton. Co-authored with Robert Brent, Michael Deaton, and Mary Handley.
- “Who Teaches Ethics? An Inquiry into the Nature of Ethics as an Academic Discipline,” (*did not attend conference*) Association for Practical & Professional Ethics, Association for Practical & Professional Ethics, Cincinnati, OH, March 3, 2011. Co-authored with McGraw, D. K. (presenter) Biesecker, A. G. Benton, M.C., and Saunders, D.
- “A system of my own: Consumer design in postwar American high-fidelity audio” (accepted but not presented). Annual conference of the International Committee for the History of Technology, 2011, Copenhagen Denmark.
- “How to Think Like Someone Else,” (*invited*) Five Eyes conference for intelligence analysis instruction. Bolling Air Force Base, Washington, D.C. Nov. 19, 2010.
- “Plug and Play: Standardized Connectors and Home Audio Reproduction.” Annual conference of the Society for the History of Technology, Pittsburgh, PA Oct. 15-18, 2009.
- “Gateway to Success: LPs, 45s, and the Format War that Wasn’t.” Annual conference of the Society for the History of Technology, October 2008, Lisbon, Portugal.
- “Engineering for Non-Engineering Schools: A Hands-On Educational Curriculum That Addresses the Need for Renewable Energy through Undergraduate Research and Applied Science.” Annual conference of the American Society for Engineering Education, June 2008, Pittsburgh, Pennsylvania.
- “A system of my own: Consumer design in postwar American high-fidelity audio” (*accepted but not presented*). Annual conference of the International Committee for the History of Technology, 2007, Copenhagen Denmark.
- “Armchair Engineering: The Empowerment of Users in High-Fidelity Audio.” Annual conference of the Society for the History of Technology, November 2005, Minneapolis, Minnesota.
- “From Whence Hi-Fi?: User-Led Industrial Formation in High-Fidelity Audio Equipment.” Annual conference of the Business History Society, May 2005, Minneapolis, Minnesota.

- “Seen and Not Heard...or Vice-Versa?: Fidelity, Décor, and Home Audio Equipment in America, 1945-1965.” Hagley Fellows Conference on “The Spectacle of Technology.” March 2005, Wilmington, Delaware.
- “‘Everything but the Popcorn’: Domesticating the Cinema by Remaking the Living Room.” Annual conference of the Society for the History of Technology, October 2004, Amsterdam, Netherlands.
- “The Endless Quest for Fidelity: A portrait of the early audiophile community,” presented at annual meeting of the Society for the Social Study of Science and Technology, August 2004, Paris, France.
- “The Consumer as System Engineer: Compatibility Standards and the American Audio Industry, 1948-1958.” Workshop on Standards, Democracy, and the Public Interest, August 2004, Paris, France.
- “The Short, Happy Life of Quadraphonic Sound.” Annual conference of the Society for the History of Technology, October 2002, Toronto, Canada.
- “The Quadraphonic Quandary.” Mid-Atlantic Conference for the History of Science, Technology, and Medicine, July 2000, Carnegie Mellon University
- “The Four-Channel Flop.” “Failure: An Interdisciplinary Graduate Student Conference,” April 2000, Harvard University
- “Timely Success: The Genesis of the South-west Lancashire Watchmaking Industry.” “On Time: History, Science, Commemoration, September 1999, Liverpool, U. K.

### **Invited Lectures, Symposia, etc.**

- “Why Recognizing Scientific Knowledge as a Social Construct Shouldn’t be Scary,” invited lecture, JMU, for “Does Society Determine Scientific Truth, JMU Logic and Reasoning Institute, March 24, 2017.
- “Giving up the Gun: Japan’s Reversion to the Sword,” invited lecture, JMU for Hiroshima University students, Feb. 28, 2012
- “Balancing in the Middle: Mid-level leaders,” (presented, invited) with Baker, S.C., Dupal, A., Fulcher, K.H., Hunter, C.A., and Lewis, K.L. CFI Madison Fellow annual gathering, Sept. 28, 2012.
- “Networking Sustainability Groups in Harrisonburg and Rockingham County,” (invited) with Charles Hendricks. Virginia Sustainable Building Network meeting, Madison County, VA, June 2012.
- “Energy Efficiency Options,” (invited). Content Teaching Academy for practicing teachers. JMU, Harrisonburg, VA. July 1, 2011.
- “Challenges to Renewable Energy in Virginia and the United States,” (invited). Content Teaching Academy for practicing teachers. JMU, Harrisonburg, VA. June 29, 2011.
- “Bringing It Home,” (invited) with Carole Nash. Content Teaching Academy for practicing teachers. JMU, Harrisonburg, VA. July 2, 2010.

Carbon Nation roundtable discussion (invited). Memorial Hall, Harrisonburg, VA. April 17, 2010.

“Valley 25x’25: Achieving 25% renewable energy in the Shenandoah Valley by 2025,” at “Making Virginia a Green Jobs Zone,” Lexington, VA, April 2010.

“Valley 25x’25,” before the Virginia Joint Commission on Energy and Environment, Richmond, VA, June 2009.

“Revisiting The Structure of Scientific Revolutions,” Introductory lecture for Penn 2003 Fulbright Program in English for Graduate Studies, August 2003, Philadelphia.

### **Other Conference Attendance**

Women in Intelligence, JMU, April 2017 and April 2019

JMU Diversity Conference, JMU, 2017 and 2018.

Engagement Scholarship Consortium in State College, PA, September 28-30, 2015.

CityWorks(X)po/ Roanoke, VA, Oct. 2-4, 2014.

MOOCs in STEM: Exploring New Educational Technologies (electronic attendance), June 2014.

Five Eyes analytic training conference, JMU, Harrisonburg, VA. Feb. 11-13, 2013.

Energy & Sustainability Conference, Virginia Commonwealth University, Richmond, VA, January 30-31, 2013.

Annual meeting of the Society for the History of Technology (SHOT) in Cleveland, OH, Nov. 3-6, 2011.

Virginia Biodiesel Conference 2011, James Madison University, Harrisonburg, VA. Sept. 9, 2011.

Wikipedia and Higher Education conference, (invited) Boston, MA, July 7-10, 2011.

Five Eyes analytic training conference, JMU, Harrisonburg, VA, April 4-6, 2011.

“Our Changing Oceans,” National Council for Science and the Environment, Washington, D.C. Jan. 19-21, 2011.

“Materiality and Immateriality,” (organizer) Annual Meeting of the Special Interest Group in Computers, Information, and Society (SIGCIS). Tacoma, WA. Oct. 4, 2010.

“Michael Mahoney and the Histories of Computing,” (organizer) Annual Meeting of the Special Interest Group in Computers, Information, and Society (SIGCIS). Pittsburgh, PA. Oct. 2009.

Commonwealth of Virginia Energy Symposium (COVES), Lexington, VA, Oct. 7-8, 2009.

(Organizer) Second Virginia 25x’25 organizational meeting, Lexington, VA, Oct. 6, 2009.

Four Eyes analytic training conference, Harrisonburg, VA, Aug. 31- Sept. 3, 2009.  
(Organizer) Virginia 25x'25 organizational meeting, Harrisonburg, VA, June 10, 2009.  
National 25x'25 Summit, Arlington, VA, March 31-April 2, 2009.  
Consumer Electronics Show (CES), Las Vegas, NV, Jan 2007.

### **Service to the University, College, Department, and Programs**

Orientation Program Review, member and focus group subcommittee co-chair (JMU), 2019  
Institute for Stewardship of the Natural World, Executive Committee (JMU), 2015-present  
Institute for Stewardship of the Natural World, Education and Scholarship committee, chair (JMU), 2015-present  
CISE Leadership Team (CISE), 2012-present  
CISE Diversity Council, chair (CISE), 2012-2016, 2018-present  
CISE Curriculum and Instruction (CISE), 2012-2016, 2018-present  
Diversity Council Chairs (JMU), 2014-2016, 2018-present  
Course Scheduling committee (JMU), 2012-2016, 2018-present  
Restricted Program Advisory Group (JMU), 2012-2016, 2018-present  
A-Team (JMU), 2012-2016, 2018-present  
Summer Session Advisory Board (JMU), 2015-present  
CISE Executive Administrative Assistant search committee (CISE), 2019  
Biology Department AUH search committee (CSM), 2018-2019  
New Faculty Academy Mentor (JMU), 2016-17, 2017-18, 2018-2019  
ABET committee (BSISAT), 2006-207, 2012-2014, 2017-2018  
The Graduate School Executive Committee (JMU), 2018  
Advisor, Club Tennis team (JMU), 2012-2017  
Graduate Certificate Task Force (JMU), 2017  
Cohen Center Advisory Board, 2016-2017  
Electives Task Force, 2016  
SAT/ACT Task Force, 2015-2016  
Online Education Coordinator (new position) search committee (JMU), 2015-2016  
Engagement Scholarship Consortium 2015 conference planning committee (JMU), 2014-16

Dingledine Scholarship Selection participant (JMU), 2013-2016  
Environmental Humanities Minor planning committee (JMU), 2013-2015  
Bicycle and Pedestrian Advisory committee advisory member (JMU), 2013-2015  
Preface facilitator (JMU), yearly 2010-2016  
Curriculum Renewal committee (BSISAT), 2013-2016  
Upper Division Review committee (BSISAT), 2010-2016  
Member of the Madison Caucus for Gender Equality (JMU), 2012-2016  
College of Health and Behavioral Studies Associate Dean Search committee (JMU), 2015  
Psychology Department Academic Program Review team, chair (JMU), 2014  
Course Evaluation Steering committee (JMU), 2013-2014  
Social Context Faculty Search committee (BSISAT), 2013-2014  
Personnel Advisory committee (ISAT), 2011-2014  
Assessment committee (BSISAT and ISAT), 2006-2014  
Diversity committee (ISAT), 2011-2014  
Social Context team (BSISAT), 2005-present, chair (2007-08, 2011-2014)  
ISAT Library Representative (ISAT), 2010-2014  
Hillcrest Scholarship Selection committee (JMU), 2013  
Reviewer, Madison Writing Awards (JMU), spring 2011, 2012, and 2013  
Coordinator, Minor in Science, Technology, and Society (JMU), 2009-2013  
ISAT Departmental Leadership team (ISAT), 2010-12  
Capstone Project Funding committee (ISAT), 2011-12, chair (2011-12)  
Publicity committee (ISAT), 2011-12, chair (2011-12)  
Preface Text Selection group (JMU), 2010-12  
IA search committee (IA) 2010-11  
Green Roof advisory group (ISAT), 2011  
Academic Integrity Task Force (JMU), 2009-2010  
Applied Liberal Arts exploratory group (JMU), 2010  
Strategic Vision committee (ISAT), 2009-10  
Strategic Vision committee (BSISAT), 2009-10.  
Recruiting committee (BSISAT), 2006-2010.  
Senior Project task force (BSISAT), 2006-2009, chair (2007-2009).  
ISAT Department Head search committee (CISAT), 2009-2010.  
Integration committee (BSISAT), 2008-2009.

First-year reading (JMU), 2008, 2009.

Conversations with Professors (JMU), 2008, 2009.

Who Are We? committee (BSISAT), 2007.

Alternative Fuel Vehicle Lab advisory group, (CISAT/JMU), 2007-2010.

### **Consulting (paid and unpaid)**

Columbia Gas WarmWise Energy Efficiency Program, (unpaid) summer 2009-2013.

Interview for American Gas Association regarding the future of the energy sector,  
(unpaid) June 2010.

Analysis of “Maturity Model” for measuring Iraqi regional reconstruction, (unpaid) U.S.  
Department of State, spring 2009.

Oral interview editing for the Society for Industrial and Applied Mathematics (SIAM),  
(unpaid) history of computing and numerical analysis, summer 2004-spring 2006.

### **Professional Review Activities**

American Society for Engineering Education (ASEE) annual conference, Liberal  
Education/Education & Society division, 2018.

Engagement Scholarship Conference, 2015.

James Madison University Research Journal (undergraduate), 2013-present.

Environment Virginia Conference. Virginia Military Institute, 2012-2015.

Special Interest Group in Computers, Information, and Society (SIGCIS) annual  
conference, 2009-11. (led the review process in 2010).

American Society for Engineering Education (ASEE) annual conference, Liberal  
Education division, 2010-11.

### **Professional Membership, Activities, and Service**

Secretary, SHOT Special Interest Group in Computing, Information, and Society  
(SIGCIS), 2008-2011.

Commenter, panel on “Networks as Places in the History of Computing.” Annual  
Meeting of the Society for the History of Technology. Tacoma, WA. Oct. 2010.

Conference organizer, “Materiality and Immateriality,” Annual Meeting of the Special  
Interest Group in Computers, Information, and Society (SIGCIS). Tacoma, WA.  
Oct. 4, 2010.

Conference organizer, “Michael Mahoney and the Histories of Computing,” Annual  
Meeting of the Special Interest Group in Computers, Information, and Society  
(SIGCIS). Pittsburgh, PA. Oct. 2009.

Member of Society for the Social Study of Science, 2005-present.

Member of the Society of the History of Technology (SHOT), 1998-present.

Member of American Society for Engineering Education, 2008-2009.

### **Community Activities, Media, and Service**

WHSV (local television) interview on daylight savings time and fuel consumption, Nov. 1, 2013.

Chair and founding member, Harrisonburg Rockingham Green Network (HRGN). 2011-present.

Numerous local events related to renewable energy for Valley 25x'25, including (selected recent events):

- Harrisonburg Green Expo, Autumn 2012 and Autumn 2011.
- JMU Odyssey Day, Autumn 2012, 2011, and 2010.
- Valley 25x'25/Firestone Tire Inflation event, August 2012.
- Litter-to-Energy panel discussion, Feb. 28, 2012.
- WVPT Kid's Day, Summer 2012 and Summer 2011.

WHSV (local television) 3-minute live interview on gasoline prices, April 25, 2011.

Harrisonburg Sustainability Summit, Spring 2011. (organizer and group leader).

Harrisonburg Mayor's Sustainability Summit, Winter 2009.

Harrisonburg Mayor's Sustainability Summit, Summer 2009.

Interview with WHSV (local television) on proposed ethanol mandate, May 6, 2009.

### **Professional Development**

IMPACT<sup>3</sup> Leadership Program, JMU, 2013-2014.

Intergroup Dialog Program: Gender, CFI, Spring 2013.

Writing Successful Grant Proposals Institute, CFI, JMU, May 8-10, 2012.

Madison Career Fellows: Mid-level leaders, CFI, JMU, Fall 2011-Spring 2012.

Creating an Inclusive Environment for a Diverse Faculty, CFI, JMU, May 7, 2012.

Deep Learning: What the Best College Students Do, CFI, JMU, Feb. 23, 2012.

Declining By Degrees: Higher Education at Risk, CFI, JMU, Nov. 18, 2011.

Enhancing Scholarly Work on Teaching and Learning: A Faculty Roundtable, CFI, JMU, Oct. 19, 2011.

Women in Technology workshop, presented by Donna Milgram, JMU Aug. 18-19, 2011.

Liberal Education Institute, JMU, May 20, 2011.

ISAT Mini-symposium on pedagogy, JMU, May 13, 2011.

Hybrid courses, CFI, JMU, May 9, 2011.

Sustainability Faculty Interest Group, CFI, JMU, Spring 2010-spring 2011.

Conversations about Academic Culture, CFI, JMU, Oct.-Nov. 2010.  
 Science on a Sphere training, JMU, May 13, 2010.  
 Thinking and Teaching in Your Discipline, CFI, JMU, May 12, 2010.  
 Integrating Sustainability Issues into Instruction, CFI, JMU, May 12, 2010.  
 Dealing with Student Resistance to Learning, CFI, JMU, Nov. 20, 2009  
 Using the JMU Writing Rubric, CFI, JMU, Sept. 2009.  
 Qualtrics training, CTI, JMU, June 2009.  
 Conversations with Professors training, May 15, 2008.  
 Information Literacy Workshop, James Madison University, May 2006.  
 Doing Digital History Workshop, Center for History and New Media, George Mason University, June 6-10, 2005.

### **Other Honors and Prizes**

College of Integrated Science and Engineering Outstanding Service Award, 2013  
 Chimicles Fellowship for the Teaching of Writing, University of Pennsylvania, 2003-04  
 University Fellowship, University of Pennsylvania, 2002  
 Jack Pressman Award, University of Pennsylvania, 1999  
 SAS Fellowship, University of Pennsylvania, 1997-2001

### **Teaching Experience**

BS in Intelligence Analysis, James Madison University, Fall 2009-present

Courses taught:

IA 440 Senior Seminar in Intelligence Analysis (designed)  
 IA 450 Capstone Project in Intelligence Analysis (designed)

BS in Integrated Science and Technology, James Madison University, Fall 2005-present

Courses taught:

GISAT 160 Problem Solving in Science and Technology  
 GSCI 161 Science Processes  
 GSCI 162 Science of the Planets  
 ISAT 131 Technology, Science, and Society (redesigned, co-taught)  
 ISAT 231 Political Economy of Technology and Science (redesigned, generally co-taught)  
 ISAT 380E, 381E, & 308E Global Water Crisis (experimental, do-designed, co-taught)  
 ISAT 390, 3901 Holistic Problem Solving Seminar I & II: Transportation (co-designed, co-taught)  
 ISAT 477/560 Complex Systems and How They Fail (contributor)  
 ISAT 480 Standards in Science and Technology

ISAT 491 Senior Capstone Project I  
ISAT 610 Social Context of Science and Technology (co-taught)

Instructorships:

University of Pennsylvania, School of Arts & Sciences, HSSC 009, Writing about  
Scientific & Technological Failures, Fall 2003 - Spring 2005  
University of Pennsylvania, College of General Studies: HSSC 212, Science,  
Technology, and War, Spring 2002  
Drexel University, College of Evening & Professional Studies: Hist 285,  
Technology in Historical Perspective, Fall 2001

Teaching Assistantships (all at the University of Pennsylvania):

HSSC 025, Science, Magic, and Religion (twice): Spring 2000 & Spring 2002  
HSSC 152 Chinese Science and Medicine (twice): Fall 1999 & Fall 2001  
HSSC 125, Medicine and the Law: Spring 2001  
HSSC 212, Science, Technology and War: Fall 2000  
Hist 002, Europe in a Wider World: Spring 1999  
Hist 050, England, Scotland, and Ireland: War, Revolution, and Empire 1500-  
1800: Fall 1998

**Students Advised**Undergraduate students Advised

Caitlin Bittmann, Brittany Hudson, and Chelsea Ward (Federal IT landscape)  
 Matthew Care (SCADA system security)  
 Fanuel Haile (Electric bikes)  
 Elizabeth Dyer (co-advised, Embodied energy in food)  
 James Sheats (Nutrient trading)  
 Ryan Ramirez (PACE financing)  
 Caitlyn Chalfont and Molly Picard (IA, Honors, WMD)  
 Andrew Wagner (Litter-to-energy systems)  
 Constantine Moschopoulos & Owen Randolph (Organic food standards)  
 Jessica Fox (co-advised, Genetic manipulation in Sci-fi movies)  
 Dane Celnicker & Daniel Morgan (Electric-truck implementation)  
 Chris Hawkins (Converting a truck to an EV)  
 Nathan Walker and Tanner Cummings (Propane mini-baja vehicle)  
 Daniel Levitt, Doug Geiger, and Kyle Kinnally, (co-advised ,Anaerobic digester for rural Kenya)  
 Katherine Oteiza (Nanotechnology in cosmetics)

Graduate students Advised

Joseph Landson (Social construction of Chronic Fatigue Syndrome)  
 Timothy Sparks (Sociotechnical systems in open-source intelligence analysis)  
 Omer Al-Khanchi (e-banking in the Middle East)  
 Matthew Harrison (climate models in federal legislation)

Committee Member

Petra Zammit (SERM, external evaluator only)  
 Nathan Fields (MSISAT, Drones)  
 Joshua Good (MSISAT, Backstart after an EMP event)  
 Deanna Zimmerman (SERM, Solar energy in the Valley)  
 Glenn Zammit (SERM, external evaluator only)  
 Justin Wimpey (MSISAT, Biomass thermal energy for poultry farms)  
 Pon Songkiatisak (MSISAT, Pharmaceutical pollution in rivers)  
 Daniel Kitchie (MSISAT, GIS in Lithuanian security)  
 Taylor Moellers (BSISAT Honors, Biohydrogen)  
 Emily Thomas (BSISAT Honors, Alternative energy for Tangier Island)  
 Sujay Desai, Andrew Jasper, and Aaron Schatz (BISAT Honors, Biodiesel from algae)