

## DANIEL E. MEEROFF, Ph.D.

#### PERSONAL INFORMATION

**Institutional Affiliation:** Professor and Associate Chair

Florida Atlantic University, College of Engineering and Computer Science,

Department of Civil, Environmental & Geomatics Engineering

Director of the Laboratories for Engineered Environmental Solutions

(Lab.EES)

**Contact Information:** Department of Civil, Environmental & Geomatics Engineering

777 Glades Road, Bldg. 36, Room 206, Boca Raton, FL 33431-0091

Telephone: (561) 297-3099 Email: <u>dmeeroff@fau.edu</u>

Website: http://labees.civil.fau.edu

**Birthplace:** Rochester, Minnesota, USA (June 1, 1973)

**Languages:** Fluent in English and Spanish

#### **Education**

Ph.D. in Civil Engineering, Environmental Engineering Emphasis University of Miami, Coral Gables, FL (December 2001)

Master of Science in Civil Engineering, Environmental Engineering Emphasis University of Miami, Coral Gables, FL (August 1997)

#### **Bachelor of Science in Environmental Science**

Florida Institute of Technology, Melbourne, FL (May 1995)

Faculty Honors Award recipient (awarded to the highest ranking graduating senior in the University at large, as *valedictorian*)

#### **Areas of Specialization**

- Environmental Engineering
- Green Building Infrastructure & Design
- Solid/Hazardous Waste Management
- Water Chemistry
- Pollution Prevention and Conservation
- Water and Wastewater Treatment
- Pollution Control Technologies
- Environmental Microbiology
- Water and Air Quality Control
- Alternative Fuels

### **Professional Licensure**

Engineer Intern. State of Florida Board of Professional Engineers.

License #: 1100003721 (September 1998).

## **Undergraduate Research and Inquiry Highlights**

- Supervised 70 undergraduate students on 47 undergraduate research projects
- Supervised 616 undergraduate students on 153 capstone design projects
- Awarded \$77,848 for 12 internally funded research grants including:
  - o The first intercollege DTD Curriculum Grant: "Expanding the Student-Centered Undergraduate Research Culture Across the Curriculum"
  - o 4 Undergraduate Research Grants (involving 8 undergraduate student researchers)
  - o Assessment grant: "Investigative Learning-Centered Assessment in Undergraduate Engineering Coursework"
  - o 2 Tech Fee grants to improve undergraduate research facilities
  - o WAC Curriculum Development Grant "Research, Creative and Scholarly Activities into the Undergraduate Curriculum"
- 83% of Dr. Meeroff's externally funded research grants (n=33) involve undergraduate researchers for a total of \$831,590.
- Authored <u>43</u> peer-reviewed research articles, <u>80</u> conference papers/posters, and <u>1</u> textbook with participation from undergraduate researchers
- Member, Undergraduate Research Curriculum Committee, 2015-Present
- Member, DTD Co-Curriculum Committee and Council of Undergraduate Research, 2012-Present
- Reviewer, Undergraduate Research Grants, 2012-Present
- DTD Faculty Liaison, College of Engineering and Computer Science, 2015
- John J. Guarrera Engineering Educator of the Year, The Engineer's Council, 2014
- FAU Distinguished Teacher of the Year, 2014
- Co-authored a peer-reviewed journal article on undergraduate research:
  - O D. Chamley-Wiik, K. Dunn, P. Heydet-Kirsch, M. Holman, D.E. Meeroff, and J. Peluso. (2014). "Scaffolding the development of student research skills for capstone experiences: A multi-disciplinary approach." *CUR Quarterly*, 34(4): 18-25.
- Facilitator, co-leader, contributor, or participant in <u>7</u> Faculty Learning Communities related to undergraduate research
- Presenter or participant in 6 DTD Professional Development Workshops
- Quality Matters Seal of Recognition for eLearning, EGN2095-Engineering Chemistry, 2013
- NCEES Engineering Award \$25,000 Winner, Dania Beach Nanofiltration Plant Expansion, 2012
- Sloan-C Online Education Retention Strategies Teaching Certification, 2012
- 5th Annual Florida Statewide Symposium: Engagement in Undergraduate Research, Orlando, FL, 2012
- FAU Excellence and Innovation in Undergraduate Teaching Award, 2011
- FAU College of Engineering and Computer Science, Excellence in Undergraduate Teaching Award Nominee, 2009 and 2010
- Writing Across the Curriculum Certification Training, 2010
- Assessment Training, 2010
- American Society of Engineering Educators, SE Section Conference, Memphis, TN, 2008
- FAU Researcher of the Year Award Nominee (Assistant Professor Level), 2006
- FAU College of Engineering Dean's Award, 2004
- Distinguished Teacher of the Year Award Nominee, 2004, 2005

#### **Employment History**

• Professor with Tenure (August 2014 – Present)

Florida Atlantic University, Dept. of Civil, Environmental & Geomatics Engineering, Boca Raton, FL.

- Associate Chair of the Department (October 2013 Present)
  Florida Atlantic University, Dept. of Civil, Environmental & Geomatics Engineering, Boca Raton, FL.
- Associate Professor with Tenure (August 2008 Present)

  Florida Atlantic University, Dept. of Civil, Environmental & Geomatics Engineering, Boca Raton, FL.
- Assistant Professor (August 2003 July 2008)
   Florida Atlantic University, Dept. of Civil Engineering, Boca Raton, FL.
- Post-Doctoral Research Fellow (Nov. 2001 July 2003)

  University of Miami, Dept. of Civil, Architectural & Environmental Engineering, Coral Gables, FL.

  Studied inequities in water and wastewater coverage in Latin America and the Caribbean, and investigated insitu groundwater remediation with chelating agents and recirculation wells using ultrasound and ultraviolet assisted reactions.
- University Instructor (Jan. 2001 July 2003)
  University of Miami, Dept. of Civil, Architectural & Environmental Engineering, Coral Gables, FL.
- Florida Governmental Utility Authority, Tallahassee, FL.
  Prepared monthly and annual operations reports and Consumer Confidence Reports for thirteen (13) water
- and wastewater treatment utilities.
- Engineering Consultant (Feb. 2000 May 2000)

  Montgomery Watson, Inc., Sunrise, FL.

Operations Consultant (Nov. 1999 – Dec. 2000)

Developed and implemented a microbiological market survey to classify and determine cost data from laboratories that perform microbiological analyses on drinking water.

- Research Fellow (Aug. 1997 Oct. 2001)

  University of Miami, Dept. of Civil, Architectural & Environmental Engineering, Coral Gables, FL.

  Investigated the effects of electron beam irradiation of wastewater biosolids for enhancement of anaerobic digestion, solids management, and bulking control, and supervised two undergraduate research students during method development for procedures to characterize and quantify biosolids parameters.
- Research Assistant (June 1995 Aug. 1997)

  University of Miami, Dept. of Civil, Architectural & Environmental Engineering, Coral Gables, FL.

  Completed a validation study for a medical waste reduction management model supported by Florida Power and Light Company in conjunction with Columbia Hospitals. Developed and implemented a research plan to evaluate feasibility of pilot scale diatomaceous earth filtration and ultrafiltration modified for the removal of Orimulsion® from surface waters in a study supported by the U.S. Coast Guard Oil Pollution Research Grant Program. Performed duties for a teaching assistantship in CEN 541: Environmental Chemistry.

Undergraduate Research Chemist (Jan. 1993 – May 1995)

Florida Institute of Technology, Melbourne, FL.

Conducted experimental research on the theoretical limits of strained aromatic ring structures.

Laboratory Research Intern (June – Aug. 1993)

Harbor Branch Oceanographic Institution, Ft. Pierce, FL.

Performed EPA and SW series analyses for solid waste leachate, surface water, and groundwater samples as part of the Semi-Volatile Organic Analysis division using gas chromatography/mass spectrometry in the summer internship program.

#### **Honors and Awards**

- DTD Faculty Liaison, College of Engineering and Computer Science, 2015
- John J. Guarrera Engineering Educator of the Year, The Engineer's Council, 2014
- FAU Distinguished Teacher of the Year, 2014
- Quality Matters Seal of Recognition for eLearning, EGN2095-Engineering Chemistry, 2013
- NCEES Engineering Award \$25,000 Winner, Dania Beach Nanofiltration Plant Expansion, 2012
- Florida Atlantic University Excellence and Innovation in Undergraduate Teaching Award, 2011
- FAU College of Engineering and Computer Science, Excellence in Undergraduate Teaching Award Nominee, 2009 and 2010
- Florida Tech Sports Hall of Fame Inductee, 2008
- Rail~volution 2007: Building Livable Communities with Transit Scholarship Winner \$475, 2007.
- FAU Researcher of the Year Award Nominee (Assistant Professor Level), 2006
- Florida Atlantic University College of Engineering Dean's Award, 2004
- Distinguished Teacher of the Year Award Nominee, 2004, 2005
- Florida Water Environment Association, Service Award, 2004, 2005, 2006, 2007
- University of Miami Distinguished Scholar Award, 2001
- WEF Student Paper Competition, Masters Category, 1998
- University of Miami Presidential Doctoral Research Fellowship, 1997, 1998
- University of Miami Outstanding Service Award, 1997, 1998
- Florida Tech Faculty Honors Award, 1995
- Florida Tech Outstanding Graduating Senior, 1995
- Florida Tech Distinguished Student Scholar, 1993, 1994, 1995
- Florida Tech Outstanding Academic Achievement, 1993, 1994, 1995
- Florida Tech Presidential Scholar, 1992, 1993, 1994, 1995
- Harbor Branch Oceanographic Institution, Summer Internship Award, 1993
- Florida Academic Scholar, 1992, 1993, 1994, 1995
- NCAA Division II National Soccer Champion, 1991

# Supervision of Curricular Undergraduate Research Capstone Design (2003 – Present)

Supervised  $\underline{616}$  undergraduate students on  $\underline{153}$  capstone design projects, as summarized by the following table.

Students	Project Title	Dates
[1] Daniela Alvarez, Gary Chin Sang, Yvenel Clermont, Luis Correa, Andres Merizalde	"Optimal Engineering: New FAU Schmidt Center for Academic and Athletic Excellence"	Spring 2015 – Fall 2015
[2] Denys Purdy, Charles Newberry, James Henn, Guangfeng, Raymond Peng, Stanley Merantus	"Universal Design: North Boca Neighborhood Center Development"	Spring 2015 – Fall 2015
[3] Kyle Telford, Jean Bernard Volcimus, Sylvain Estinvil, Gabriel Evens	"Beacon Engineering Services and Technology: New College of Engineering and Computer Science Laboratory Annex"	Spring 2015 – Fall 2015
[4] Juan Castillo, Jonathan Gil, Fabrice Lazarre, Gino Mora	"CerebrusEngineering Inc.: Henderson High School Expansion"	Spring 2015 – Fall 2015
[5] Jean-Simon Berube, Jose Canas- Olavarria, Lynda Manasse, Juan Valega, Enel Jean-Juste	"Modern Engineering Technologies: North Boca Neighborhood Town Plaza and Grand Entrance"	Spring 2015 – Fall 2015
[6] David Zimmerman, Clecio De Sa, Alyssa Dalloo, Jordan Rodriguez	"Resolute Design Group: A.D. Henderson School Expansion"	Spring 2015 – Fall 2015
[7] James Philippe, Vorawut Pitayanon, Diana Eckendahl, Ryan Bays, Justin Dacey	"Spartan Engineering Solutions: Athletics Building"	Spring 2015 – Fall 2015
[8] Serge Bethomieux, Natan De Leon, Stephen Hey, Gertha J. Wesh	"Teckna Engineering: FAU Communications Tower Building"	Fall 2014 – Spring 2015
[9] Daniel Gonzalez Moya, Jonathan Murphy, Hanane Akif, Adam Sanders	"Expresstech Design: Boynton Beach Police Department Building Design"	Fall 2014 – Spring 2015
[10] Mohammad Hachmi, Ashley Khan, Brandon Shaw, Kaitlin Phillips	"Hybrid Engineering Solutions: Building a New Tower for the FAU Communications Department"	Fall 2014 – Spring 2015
[11] Garrett Goldberg, Rene Kelly, Lawrence Alewine, Jerry Berkheimer, Lynda Manasse	"Green Pathways Engineering: Coastal Resiliency Center in Dania Beach"	Fall 2014 – Spring 2015
[12] Edward Reyes, Eric Luipersbeck, Breann Cornwell, Roy Carvatta, Salim Shehadeh	"Spearhead Engineering: New FAU Communications Department Building"	Fall 2014 – Spring 2015
[13] Danyl Noel, Eduardo Estrada, Michael VanZee, Jimeia Roberts	"Magnitude Engineering Group: Boynton Beach Police Department Design"	Fall 2014 – Spring 2015
[14] Kevin Menting, Charles Jones, Nathan Reaux, Dylan Trotsek, Paul Keays	"Integrated Engineering Solutions: Coastal Resiliency Center in Dania Beach"	Fall 2014 – Spring 2015
[15] Ricardo Cocconcelli, Cassidy Yerkes, Logan Parker, Raheel Hanif	"Eikos Engineering: Wildflower Park Site Improvements"	Fall 2014 – Spring 2015
[16] Lukas Simons, David Raucci, Patricia Forbicini, Geovanny Cisneros	"Eco-Integration: Wildflower Park Development"	Fall 2014 – Spring 2015
[17] Joel Brownsey, Fernando Lascano, Chad Maraj, Patrick Narcisse	"Apex Engineering Solutions: Silver Lakes Middle School Addition and Improvements"	Spring 2014 – Fall 2014

Students	Project Title	Dates
[18] Daniel Haik, Amar Patel, Eduardo Estrada, Ralph Numa, Serge Berthomieux	"Avant-Garde Engineering: Boca Raton Pier Study"	Spring 2014 – Fall 2014
[19] Claude Auguste, Neil Coffman, Matthew Iles, Donald Rabener, Jairo Razo	"Iconic Engineering Solutions: Boca Raton City Pier Project"	Spring 2014 – Fall 2014
[20] Maxime Monestine, Kerly Mora, Kaitlin Phillips, Jesse Rizzi	"Platinum Standard Engineering: Silver Lakes Middle School Addition"	Spring 2014 – Fall 2014
[21] Alex Duko, Ivan Gerasimovich, Aline Moraes, Roland Rodriguez	"Dynamic Vision Engineering: New Boca Raton Pier at Red Reef Park"	Spring 2014 – Fall 2014
[22] Sonia Angel, Fernando Guzman, Daniel Pierre, Oscar Cuevas, John Gentile	"Structural Coast Designs: New City Governmental Campus Design"	Fall 2013 – Spring 2014
[23] Stephanie Boland, Wilson Oriantus, Jonathan Van Zee, Fatih Caglayan	"Refined Engineering: Wastewater Treatment Plant for Hallandale Beach, FL"	Fall 2013 – Spring 2014
[24] Bryan Sousa, Sofia Quinones, Joel Jara, Renzo Martinat, Andres Merzalde	"Neo Alliance Engineering: New Boca Raton City Hall Building Design"	Fall 2013 – Spring 2014
[25] David Cowan, Blake Mckinney, Michael Fitzpatrick, Mateo Duenas	"Paradigm Shift Engineering: Design of an Assisted Living Facility on the FAU Campus"	Fall 2013 – Spring 2014
[26] Allison Glunt, Ian Anderson, Eduardo Duran , Ralph Cosme	"Sustainably Engineered Living Communities: FAU Assisted Living Facility for Students with Autism Spectrum Disorder"	Fall 2013 – Spring 2014
[27] Charles Long, Michael Van Zee, Ralph Numa, Reyson Condori	"Clear Vision Engineering: Boca Raton City Hall Building"	Fall 2013 – Spring 2014
[28] Jospeh Lakner, Matt May, Jose Cruz, Christine Lyons	"Forward Engineering Applications: Hallandale Beach Wastewater Reuse Plant Design"	Fall 2013 – Spring 2014
[29] Alec Sandy Muñoz, Cintia Hoffmann, Michael Wood, Wilord Metellus	"Environmentally Evolved Engineering: New Spanish River Park Design"	Spring 2013 – Fall 2013
[30] Claudio Costa II, Cleevens Guerrier, Mike Doyle, Nieves Perez Bezu, Pollop Phonpornwithoon	"S.I.S. Engineering: Design of Dania Beach Wastewater Treatment and Groundwater Recharge Facility"	Spring 2013 – Fall 2013
[31] Megan Looby, Andrew Dady, Antoine Elasmar, Jean Joseph	"Peerless Precision Design: Spanish River Recreational Facility"	Spring 2013 – Fall 2013
[32] Gert Badenhorst, Daniel Caycho, Diana Serrano, Eric Toebe	"Aqueous Engineering Solutions: Dania Beach Wastewater Treatment Plant"	Spring 2013 – Fall 2013
[33] John Iravani (PM), Joey Gerum, Reyson Condori, Ralph Numa	"United Professional Consulting: Design of Spanish River Recreational Center"	Spring 2013 – Fall 2013
[34] Marcello Ferri, Mia Galicki, Andres Salzberger, Jimmy Vilce	"Verde Construction Engineering: Hillsboro El Rio Park Expansion Project"	Spring 2013 – Fall 2013
[35] Steven Bushouse, Jose Lopez, Shaughn Miller, Raymond Urias	"ACE: New Hillsboro El Rio Park"	Spring 2013 – Fall 2013
[36] Saul Trujillo and Andre Acosta	"Green Leaf Engineering and Design's New PBI Airport Travel Plaza"	Fall 2012 – Spring 2013
[37] Diogo Carvalho, Gary Vargas, Dianne Phillips, Walid Hamad	"Infinity Consultants' West Palm Beach Airport Travel Plaza"	Fall 2012 – Spring 2013

Students	Project Title	Dates
[38] Richard Neet, Jennifer Contreras,	"Green Horizons' Palm Beach	Fall 2012 – Spring 2013
Sergio Martinez, Lynda Cadet	International Airport Travel Plaza"	
[39] Richard Mejia, Yohana Henao,	"Crezcent Engineering's New Broward	Fall 2012 – Spring 2013
Kalynina Queiroz, Podchara	County School Board Middle School"	
Supupramai		
[40] Allie Kiever, Cloyd Jack, David	"Viable Engineering Solutions' Middle	Fall 2012 – Spring 2013
Barrera, Roberto Bustamante	School for Broward County"	
[41] Toral Shah, Fernando Martinez,	"Groundbreaking Engineering's Broward	Fall 2012 – Spring 2013
Yenny Soca, Paula Viala	County Middle School "	
[42] Jayson Harrison, Urszula Debiec,	"Onpoint Engineering's FAU Biomedical	Fall 2012 – Spring 2013
Carlos Nava, Keyla Lopez	Building Phase 2"	
[43] Travis Douglas, Antwayne Dowdie,	"iGlobal Engineering's New FAU	Fall 2012 – Spring 2013
Sara Beshara, Andre Montalvo	Biomedical Building"	
[44] Jessica Smith, Steven Richards,	"Precision Planning and Design:	Spring 2012 – Fall 2012
Daniel Harper, Shane Grabski	Downtown Fort Lauderdale Commuter	
	Train Station at FEC Corridor"	
[45] Joseph Simhon, Oscar Torrens,	"Engenious Designs: Fort Lauderdale FEC	Spring 2012 – Fall 2012
Chezare Palacios, Paulina Osypka	Railway Station"	
[46] Eric Muñoz, Saribel Garcia, Jordan	"Frontier Engineering: West Palm Beach	Spring 2012 – Fall 2012
Sessa, Juan Contreras	FEC Commuter Rail Station"	
[47] Kaitlin Timm, Maurizio Benedetti,	"Transcendental Engineering: FEC Train	Spring 2012 – Fall 2012
Evens Laroque, Miguel Rojas	Station in Downtown West Palm Beach"	
[48] Alexander Chinnery, Brian Goumas,	"Horizon Engineering: Jupiter/FAU FEC	Spring 2012 – Fall 2012
Olivia Bonilla, Yaser Qureshi	Commuter Train Station"	
[49] Bilal Assaad, Brandon Bagoo, Diana	"Inception Designs: Jupiter FEC Railroad	Spring 2012 – Fall 2012
Correa, Jason Zeitler	Station"	
[50] Robert Barrett, Robert Eustice, Saul	"Gold Standard Designs: Boca Raton	Spring 2012 – Fall 2012
Trujillo	Airport Authority"	
[51] Ron Paul	"Eco-Regulatory Engineering: Boca	Spring 2012 – Fall 2012
	Raton Airport Authority Building"	
[52] Sean Bukovich, Kyle Burg, Milla	"Green-o-vation: Monorail Station at	Fall 2011 – Spring 2012
Pierce, Adam Schmidt	FEC RR Station Camino Real"	
[53] Arnold Para, Enelise Michaels, Chase	"Prestige Engineering: Beach Monorail	Fall 2011– Spring 2012
Dickinson, Celyn Dezmain	Station Development"	
[54] Janette Oliveros, Andrew Malvetti,	"Magnum Opus: FAU Monorail Station"	Fall 2011– Spring 2012
Kevin Young		
[55] Mario Gimma, Enisio Dos Santos Jr,	"New Heights: Boca Town Center Mall	Fall 2011– Spring 2012
Hamzah Riaz, Phillip Quinn	Monorail Station"	
[56] Anusha Chowdhury, David Rundio,	"Catalyst Engineering: Tri-Rail Monorail	Fall 2011- Spring 2012
Frank Youngman	Station"	
[57] Michael Cartossa, Carlos Hoyos,	"East Coast Engineering: Mizner Park	Fall 2011- Spring 2012
Nathalie Rodriguez, Stephen	Monorail Station Development"	
Williams		
[58] Dasaev Estime, Zairo Rey, Jaime	"Lifetime Engineering: Boca Raton	Fall 2011– Spring 2012
Carry Baron, Adam Coon	Hospital Monorail Station"	
[59] Noel Rodriguez, Daniel Olivar,	"Vertex Engineering Solutions: New	Spring 2011 – Fall 2011
Guedna Desir, Joseph Rodriguez	Terminal at Fort Lauderdale/Hollywood	
	International Airport"	

Students	Project Title	Dates
[60] Joseph Clark, Henry Rand, Zubeda	"Ecolutions: Engineering Building Phase	Spring 2011 – Fall 2011
Bentley, Meba Solomon	2"	
[61] Marckley Etienne, Naim	"Mondevert Engineering: Pump Station	Spring 2011 – Fall 2011
Mohammed, Celestino Martinez,	Project"	
Won Choi		
[62] Sina Ebrahimi, Ruben Frenel, Andrea	"Visionary Designs: New Engineering	Spring 2011 – Fall 2011
Carpenter, Benedict Barrett	Building"	
[63] Brandon Fleming, Renzo Mosca,	"Urban Design Solutions: Fort	Spring 2011 – Fall 2011
Xairo Rey, Erek White	Lauderdale International Airport	
	Terminal Expansion"	
[64] Ahmad Rahman, Carlos Velasquez,	"Empire State Engineering: Miami-Dade	Spring 2011 – Fall 2011
Jehole Auguste, Mike Giani	Pump Station for Adaptation to Climate	
	Change"	
[65] Carla Almeida, Sean Nemser, Duong	"Fenix Engineering: Dania Beach Hotel	Fall 2010- Spring 2011
Yong, William McDonald, Cacimar	Project"	
Rivera		
[66] Catie Kiever, Kaamil Tayyab, Oscar	"Evergreen Engineering: Dania Beach	Fall 2010– Spring 2011
Suarez, Timothy Rybas	Hotel"	
[67] Alben Brandt, Andre Bigatao, Cecilia	"Nova Era Engineering: Entertainment	Fall 2010- Spring 2011
Espejo, Luis Calderon	Facility in Dania Beach, FL"	
[68] Stephanie Ridener, Aren Griffin,	"Ingenium Engineering: Dania Beach	Fall 2010- Spring 2011
Fernando Pleitez, Ion Mavrodin	Entertainment Complex"	
[69] Patrick Ceres, Kyle Cheerangie,	"Agora Engineering: Dania Beach Mixed	Fall 2010- Spring 2011
Stacy Golden, Mary Hayden	Use Facility"	
[70] Clifford Hippolyte, George Santos,	"Engineering Design Solutions: Dania	Fall 2010– Spring 2011
Sam Ciminello, Thomas Romah	Beach Hotel Project"	
[71] Tiffany Stanton, Cody Asher, Husayn	"Paragon: Mixed Use Facility Dania	Fall 2010– Spring 2011
El Sharif, Francisco Martinez	Beach, FL"	
[72] Fawn Kibria, Alvaro Galletebeitia,	"Epic: Train Station"	Spring 2010 – Fall 2010
William McDonald, Toni Lopez		
[73] Victor Rosas, David Mairena,	"Archimedes: Public Safety Complex"	Spring 2010 – Fall 2010
Richard Reichenbach, Larry		
Lammers	(I)	
[74] Mary Anise, Patricia Coker, David	"Pure Elements: Mixed Use Facility"	Spring 2010 – Fall 2010
Mondragon, Luis Pinzon		0 1 0010 7 11 0017
[75] Catie Kiever, Carlos Tijerino,	"Elements Engineering: Public Safety	Spring 2010 – Fall 2010
Cacimar Rivera, Lou Dieudonne	Complex"	Curto - 2040 F !! 2040
[76] Stephanie Battistini, Borja	"ISES: Public Safety Complex"	Spring 2010 – Fall 2010
Galletebeitia, Matthew Holland,		
Andrew Wu	"FCO Solution, Train Station"	Caring 2010 F-II 2010
[77] Carla Almeida, jose Santacruz, Cristina Suriel, Stanley Thelisma	"ECO Solution: Train Station"	Spring 2010 – Fall 2010
-	"Zanith: Miyad Usa Fasility"	Spring 2010 Fall 2010
[78] Joseph Ahmad, Lisner Baptiste, Jean-Baptiste Henry, Benezir	"Zenith: Mixed Use Facility"	Spring 2010 – Fall 2010
Palomo, Richard Douglas		
[79] Jillian Gastright, Dewey L.eBlanc,	"Atlas Consulting and Design"	Fall 2009 – Spring 2010
Amit Singh, Cyithu Maung	Adds Consulting and Design	1 all 2003 - 3hillig 2010
[80] Alexandra Johnsen, Carmin	"Atlantic Coastal Engineering	Fall 2009 – Spring 2010
Dorelian, Jonathan Glenn,	Consultants"	1 an 2003 – Spring 2010
Christopher Chanona	Constituits	
Christopher Chanona		

Students	Project Title	Dates
[81] Jennifer Medina, Jordan Maniscalco,	"Compass Engineering Firm"	Fall 2009 – Spring 2010
Tom Hatcher, Wing Yan	, 3	
[82] Anthony Ruffini, Ahmad Kaik,	"Osiris Enginering"	Fall 2009 – Spring 2010
Augustus Cicala, Tychsen Yager		
[83] Laura Hover, Zach Thompson, Chaz	"EcoTex Engineering"	Fall 2009 – Spring 2010
Goblisch, Hussein Musleh	Leorex Engineering	7 dii 2003 3pi ilig 2010
[84] Gayane Acopian, Jason Neal, Julian	"Paradigm Engineering"	Fall 2009 – Spring 2010
Guevara, Andrew Mitchell	T dradigiti Engineering	Tail 2003 Spring 2010
[85] Tony Chu, Gregory Corning, Roody	"Eclectic Engineering, Inc.: Phase 2	Spring 2009 – Fall 2009
Numa, Claudia Olarte	Engineering Laboratory Building Project"	5pring 2009 – Fail 2009
		Smrin = 2000 Fall 2000
[86] Jeremy Davis, Lilian Gonzalez, Alex	"Future Engineering: LEED-Gold Broward	Spring 2009 – Fall 2009
Lima-Arie, Andre MacBarnette	County Regional WWTP Energy	
	Management Project"	
[87] Christopher Beale, Richard Fesdijan,	"Terra Design Engineers: Broward	Spring 2009 – Fall 2009
Lucrece Riche, Laura Simons	County North Regional WWTP Project"	
[88] Rohan Brown, Christopher Hawn,	"Broad Spectrum Engineering: LEED-	Spring 2009 – Fall 2009
Merary Pascual, Kevin Soltau	Gold Engineering Building, Phase 2"	
[89] Ricardo Augustin, Manuel Cuetara,	"Global Innovative Construction	Spring 2009 – Fall 2009
Jesse Davis, Anushi Obeysekera	Company: Dania Beach Mixed Use	
	Facility"	
[90] Yves-Stanley Delmas, Stephan Mack,	"Eco-Prospective Engineering: Dania	Spring 2009 – Fall 2009
Dominique Simeus, Amanda	Beach Mixed Use Facility"	
Chadwick		
[91] Marjorie Hilaire, Juan Palacio, Anam	"Sky Engineering: Redevelopment of	Fall 2008 – Spring 2009
Usman, Geoffrey Van Allen	Dania Beach Library"	
[92] Elie Boueri, Steve Chery, Samuel St.	"Eco-Innovative Engineering: Dania	Fall 2008 – Spring 2009
Hilaire, Kathleen Wright	Beach Library"	, am = 222
[93] Luke Gonsalves, Angus Jordan,	"First Rate Engineering: FAU Wellness	Fall 2008 – Spring 2009
Michael Joseph, Silvia Ortega	Center"	Tun 2000 Spring 2005
[94] Franco Custodio, Juliana Jaramillo,	"Altavista Engineering: Developing a	Fall 2008 – Spring 2009
Junior Senat, Oscar Zaldana	LEED-Gold Certified Recreation and	Tail 2008 – Spring 2009
Juliol Sellat, Oscal Zalualia	Wellness Center at FAU"	
[95] Bahram Abidian, Natasha Bethel,	"Green Coast Engineering: Florida	Fall 2008 – Spring 2009
		Faii 2008 – Spring 2009
Reeve Sainvil, William Thomas	Atlantic University Alumni Center	
[00]	Development"	5 H 2000 S : 2000
[96] Lupe Coral, Jessy Jean, Ernschry	"Diverse Engineering Consultants: FAU	Fall 2008 – Spring 2009
Jules, Frantz LaFontant, Giuseppe	LEED-Gold Alumni Center Project"	
Van Oordt	//C 1	
[97] Cory Blake, Linda Hess, Paula	"Prime Design: Green Water Plant at	Spring 2008 – Fall 2008
Fonseca, Luis Itturalde	Dania Beach, FL"	
[98] Muhammad Khan, Troy Bishop,	"Global Solutions Inc.: PPEC Building	Spring 2008 – Fall 2008
Marque Davis, Amit Patel, John Neff	Renovation"	
[99] Mustafa Albassam, Rodrigo	"Babilón Engineering: New Arts &	Spring 2008 – Fall 2008
Ledezma, Edson Corredor, Jean-	Letters Building at FAU"	
Baptiste Edouard		
[100] George Beck, Nicolas Boggio,	"2BCM: Green Water Treatment Plant	Spring 2008 – Fall 2008
Lina Camacho, Christopher Masters	Expansion at Dania Beach, FL"	
[101] Ricardo Brown, William	"Galactic Engineering Technology:PPEC	Spring 2008 – Fall 2008
Degnan, Wali Naemi, Xiao Liang	Tender Care Facility"	

Students	Project Title	Dates
[102] Mariella Conde, Frank Wirz,	"Empire Engineering: New Arts and	Spring 2008 – Fall 2008
Andrea Vargas, Thuc Mai, Carlos	Letters Teaching Facility"	
Colmenares		
[103] Seth Morla, Juan Ramirez, Keith	"JEMS Engineering: Innovation Village	Spring 2008 – Fall 2008
Erdman, Steven Wong	Apartments"	
[104] Mark Chervony, Lacinda Jacobs,	"Eikon Engineering and Development:	Spring 2008 – Fall 2008
Jean Max Lilavois, Dinyar Sharifabad	FAU Innovation Village Apartments"	
[105] Megan Bailey-Hazell,	"International Building Partners: Pine	Fall 2007 – Spring 2008
Barthelemy Metelus, Scott Parr,	Jog Out-Building Rehabilitation"	
Constantin Bortes		
[106] Scott Ornitz, Anita Kliment, Alex	"Emerald Design Group: FAU/USGS Joint	Fall 2007 – Spring 2008
Rivera, July Randt, Matthew Handall	Use Building"	
[107] Taylor Blake, David Schweiger,	"Athena Engineering: Boca Raton	Fall 2007 – Spring 2008
Laura Crosbie, Maryori Velasco,	Community Teaching Hospital Design"	
Irene Belgrave		
[108] Andrea Ramudo, Trevor	"Second Nature Engineering: Pine Jog	Fall 2007 – Spring 2008
Rosecrans, Thomas Virgin, Ernschry	Environmental Center Design"	
Jules, David Antoine		
[109] Luis Santana, Youry	Advanced Engineering Solutions: FAU	Fall 2007 – Spring 2008
Demothenes, Marcenel Joseph,	Teaching Hospital Design"	
Michael Riemer, Jean Destin		
[110] Owen Riggs, Samuel Nuñez,	"Essential Engineering: Design of	Fall 2007 – Spring 2008
Randald Bartlett, Frantz LaFontant,	FAU/USGS Joint Use Facility Davie	
Kristine Le	Campus"	
[111] Mohammad Ali, Joaquin Pire-	"USGBC Emerging Green Builders:	Spring 2007 – Fall 2007
Schmidt, Daniel Grijalba, Nadia	Virginia Key Museum"	
Zeitinger	#C D '' D ''	C : 2007 E !! 2007
[112] Omar Khan, Stephen Peters, Jonah Weaver	"Green Dormitory Building at FAU"	Spring 2007 – Fall 2007
	"Virginia Koy Boach Bark Croon Decian"	Caring 2007 Fall 2007
[113] Giancarlo Benedetti, John Fishburn, Marcello D'Andrea, Juan	"Virginia Key Beach Park Green Design"	Spring 2007 – Fall 2007
Moreno		
[114] Jaime Agudelo, Carlo Pierre,	"Student Housing at FAU Using Green	Spring 2007 – Fall 2007
Brian Tiehen, Gary Wheeler	Building Practices"	3prilig 2007 – Fall 2007
[115] Eric Gonitzke, Jill Dobashi,	"Green Rehabilitation of the Miami	Fall 2006 – Spring 2007
Helen Nalwanga	Beach Patrol Headquarters"	1 all 2000 Spring 2007
[116] Jamie Fraser, Eva Campello,	"Miami Beach Patrol Headquarters"	Fall 2006 – Spring 2007
Robert Grubel, Nirav Patel	Whathi Beach ratio ricadquarters	1 dii 2000 - Spring 2007
[117] Jason Trujillo, Suat Navarro,	"Green Design of the Fairwinds Hotel"	Fall 2006 – Spring 2007
Ben Hayner, Richard Crow	Cream Design of the valuational victor	- un 2000 - op 8 2007
[118] Michael Dalickas, Rebecca	"Green Building Design for the Fairwinds	Fall 2006 – Spring 2007
Gates, Navon Wallace, Jorge Novoa	Hotel"	- un 2000 - op 8 2007
[119] Regina Argumedo, Travis	"RTN: Multi-Disciplinary Research	Spring 2006 – Fall 2006
Iverson, Nigel McGregor	Village"	0 222 230
[120] Michael Fesdijan, Jean Felix,	"AECG: FAU Heritage: T-Building Site	Spring 2006 – Fall 2006
Diana Rivas, Malherbe Osias	and its Green Changes"	, 0 ::: :::: =:::
[121] Carlos Tijerino, Shauna Sproul,	"PCS&J: T-Building Restoration"	Spring 2006 – Fall 2006
Peter Megala, Jonathan Reinsvold	<u> </u>	
[122] José Theiler, Abbas Abady,	"Creative Solutions, Inc.: Pine Jog	Fall 2005 – Spring 2006
Joselito Del Valle	Education Center"	
1		

Students	Project Title	Dates	
[123] Ryan Wheeler, Aaron Watt, Hetal Patel, Santiago Hincapie	"Global Eng. Consultants: Building Green Initiative: An Elementary School Site at the Pine Jog Environmental Education Center"	Fall 2005 – Spring 2006	
[124] Jeannine Offutt, Concepcion Hayman, Jennifer Fought, Hayes Templeton	"Green World Engineering: Miami Environmental Outreach Laboratory"	Fall 2005 – Spring 2006	
[125] Charles Bartlett, Akash Bissoon, Tammy Martin, Victor Badal	"CAT V: Redesign of the Visual Arts Center Site"	Summer 2005 – Fall 2005	
[126] Daniel Payne, Dieutel Francois, Parastoo Sanjari, Eli Brossell, Marcos Souza	"Mangrove Engineering: Transformations Project: Rethinking the Visual Arts Building"	Summer 2005 – Fall 2005	
[127] Tinu Peña, Mercedes Baccinelli, Lisa Bernier, Victor Gutierrez, Earl Henry	"MTG: A.D. Henderson University School Improvements"	Summer 2005 – Fall 2005	
[128] Juan Bolivar, Gil Samson, Riti Waghray, Scott Thurman	"Smart Solutions Engineering, Inc.: Transformations of the Visual Arts Center, FAU, Boca Raton, FL"	Summer 2005 – Fall 2005	
[129] Shawn Bunch, Alex Correa, Matt Griffin, Ada Ortiz, Cassie Piché	"Synergy Engineering: A.D. Henderson School Classroom Addition"	Summer 2005 – Fall 2005	
[130] Yvel Rocher, Eli Brossell, Victor Gutierrez, Kristine Le, Scott Thurman	"Project D: Upgrading the Royal Lakes WWTP in Jacksonville, FL using Sequencing Batch Reactor Technology"	Spring 2005	
[131] Ruth Haggerty, Chuck Barlett, Jesse Del Valle, Tinu Peña	"Group C: Converting Royal Lakes WWTP into a Reclaimed Water Facility"	Spring 2005	
[132] Petersen Benjamin, Juan Bolivar, Tammy Martin, Riti Waghray, Abbas Abady	"JRPAT Inc.: Feasibility of Upgrading JEA Royal Lakes WWTP to Meet TMDL Criteria Using Membrane Bioreactors"	Spring 2005	
[133] Monica Morandi, Concepcion Hayman, Marcos Souza, Jessy Jean, Shawn Bunch	"Project E: Tuscaloosa, Alabama Emergency Water Treatment"	Spring 2005	
[134] Leonardo DoCanto, Victor Badal, Alex Correa, Ryan Wheeler Daniel Payne	"Boto Environmental: Phasing Out Royal Lakes WWTP"	Spring 2005	
[135] Jean Malvoisin, Akash Bissoon, Gil Samson, Dieutel Francois, Jeannine Offutt	"Team F: Emergency Water Treatment Project"	Spring 2005	
[136] Ruth Haggerty, Leonardo DoCanto, Khant Myat, Monica Morandi, Denise Barros	"Precision Design: New Green Engineering Building"	Fall 2004 – Spring 2005	
[137] Seneca House, Jason Debrincat, Rick Handfield, Henry Johnston	"JDH <sup>2</sup> : Green Engineering Building"	Fall 2004 – Spring 2005	
[138] Petersen Benjamin, Vilma Caballero, Amar Persaud, Heidi Von Korff	"Blue Wave Eng. Inc.: College of Engineering Green Building Design"	Fall 2004 – Spring 2005	
[139] Yvel Rocher, Kenzot Jasmin, Alan Mrvica, Jean Malvoisin	"Beta Consulting & Engineering: New College of Engineering Green Building"	Fall 2004 – Spring 2005	
[140] Jane Gao, Ron Benson, Sean Frazer, Ashley Barr	"JARS Inc.: Green Engineering Building Design"	Fall 2004 – Spring 2005	

Students	Project Title	Dates
[141] Ashley Barr, Sean Frazer, Kenzot Jasmin, Kristy Potgieter	"Project A: Phasing-Out Royal Lakes WWTP"	Fall 2004
[142] Denise Barros, Richard Handfield, Amar Persaud, Mauricio Pico	"Group 2: Converting the Royal Lakes WWTP to a Reuse Facility"	Fall 2004
[143] Ron Benson, Jane Gao, Seneca House, Parastoo Sanjari	"Project C: JEA Royal Lakes WWTP"	Fall 2004
[144] Felipe Pulido, Mauricio Pico, Evan Kennedy, Kristy Potgieter	"K.P. <sup>3</sup> : Blue Lake Master Plan"	Summer 2004 – Fall 2004 (Evaluation of Final Design Only)
[145] Vilma Caballero, Jason Debrincat, Milot Emile, Jean Jeanty, Adriana Toro	"Team A: Anaerobic Digestion System for ECRWRF, City of West Palm, Florida"	Spring 2004
[146] Olive Henry, Henry Johnston, Evan Kennedy, Felipe Pulido, Dexter Whaley	"Team B: Autothermal Thermophilic Aerobic Digestion Design for East Central Regional Water Reclamation Facility"	Spring 2004
[147] Matthew Maxey, Jennifer Magnus, Julian Deleon, Tazmi Shaw, Mike Genduso, Bhavika Patel	"IES: Direct Access I-95 Interchange Design over Glades Road"	Summer 2003 – Fall 2003 (Evaluation of Final Design Only)
[148] Amy Omae, Erick Revuelta, Linsey Graham	"Coral Reef Destruction"	Spring 2003 (University of Miami)
[149] Daniel Mannina, Nicole Marcovich, Rebecca Ohm	"Ecotourism on the Galapagos Islands"	Spring 2003 (University of Miami)
[150] Jason Jasinki, Peter Alfano, John Seaton	"Midwest Gen NO <sub>x</sub> Production"	Spring 2003 (University of Miami)
[151] Ryan Driscoll, Alexandra Janelli, Jody Stryker	"Leaky Underground Storage Tanks"	Spring 2003 (University of Miami)
[152] Rachel Dawson, Amy Warner, Daniel Milian	"Impact of Nitrate Runoff in the Coastal Environment"	Spring 2003 (University of Miami)
[153] Heather Horn, Soledad Stegmann, Laura Chartier, Mike Mullen	"Aflatoxin Issues"	Spring 2003 (University of Miami)

## Supervision of Co-Curricular Undergraduate Research (2003 – Present)

I have supervised  $\underline{70}$  undergraduate students on  $\underline{47}$  undergraduate research projects, and also participated in K-12 outreach and training programs (STEM Academy) for Lauderhill, McNicol, Sunrise, Apollo, Parkway, and Silver Lakes M.S. in 2011 – 2013 for teacher training and student instruction.

Project Title	Student	Туре	Dates
"Removing Methanol Additives	[1] Lissandre Meyer	BSCV 2018 expected (FAU)	Spring 2015-
from Fracking Fluids using			
Advance Oxidation Technology"			
"Determination of Appropriate	[2] Brandon Shaw	BSCV 2015 expected (FAU)	Fall 2015-
Sample Size for Stucco Removal	[3] Jonathan Murphy	BSCV 2015 expected (FAU)	
Studies"	[4] Dylan Trotsek	BS/MS 2016 expected (FAU)	
"Investigation of Iron	[5] Neil	BS/MS 2015 expected (FAU)	Summer 2014-
Underneath Landfills"	Coffman		
"Analysis of Leachate for Soluble Calcium Content"	[6] Justin Dacey	BSCV 2015 expected (FAU)	Summer 2014-
"Studies of Iron Underneath Landfills"	[7] Megan Matson	BSOE 2017 expected	Summer 2014- Fall 2014
"Leachate Clogging Research"	[8] Jessyca Dalazen	Visiting Researcher BSCV 2018 expected (NAU)	Summer 2014
"Leachate Analysis of Water Quality Parameters Associated with Clogging"	[9] Alyssa Harris	BSEE 2017 expected (FAU)	Fall 2013 -
"Investigation of Leachate Clogging"	[10] Denys Purdy	BSCV 2015 expected (FAU)	Fall 2013 -
"Leachate Water Quality"	[11] Geovanny Cisneros	BSCV 2015 expected (FAU)	Fall 2013 – Spring 2014
"Analysis of Leachate Water Quality"	[12] Ricardo Cocconcelli	BSCV 2015 expected (FAU)	Fall 2013 – Spring 2014
"Research of Leachate Water Quality with Respect to Clogging in Pipes"	[13] Oceané Boulais	BSEE 2018 expected (FAU)	Fall 2013 – Spring 2014
"Dania Beach Contibution of On- Site Treatment and Disposal Systems"	[14] Azuogu Chijioke	BSCE 2018 expected (FAU)	Fall 2013
"Dania Beach Contibution of On- Site Treatment and Disposal Systems"	[15] Gabriel Espinal	BSCE 2018 expected (FAU)	Fall 2013
"Leachate Clogging Field Work"	[16] Colleen Wiltberger	Visiting Researcher BS 2016 expected (UNF)	Summer 2013
"Leachate Clogging Research"	[17] Christine Lyons	BSCV 2014	Fall 2012 – Spring 2014
"Dissolution of Iron Underneath Landfills"	[18] Cleevens Guerrier	BSCV 2014	Fall 2012 – Fall 2013
"Leachate Photocatalysis Optimization"	[19] David Vargas	Visiting Researcher BSEV 2013 (Johns Hopkins)	Summer 2012
"Sustainshield for Environmentally Preferable Purchasing"	[20] David Cowan	BS/MS 2015	Spring 2012 – Summer 2014

11 – er 2012
at a d
eted
2012
eted Fall
eted
er 2011
eted
2010
eted
2009
eted
2010
2010
2009
eted Fall
ctcaran
er 2009
eted
2009
eted
2009
eted
er 2008
eted
er 2008
eted
2008
eted
er 2007
eted
2008
eted
2008

Project Title	Student	Туре	Dates
"Boynton Beach Water	[42] Linda Hess	BS/MS 2009	Completed
Quality and Odor Control			Spring 2008
Study"			
<ul> <li>"Urban and Rural Beaches</li> </ul>			
Pathogen Study"			
<ul> <li>"Taylor County Green Lodging</li> </ul>			
Assessment"			
"CGN4905 – Water Supply and	[43] Parastoo Sanjari	BSCV 2006	Completed
Treatment: Design of a Water			Spring 2006
Treatment System for an Orchid			
Nursery"			
"2006 FWEA Student Design	[44] François Gasnier	BS/MS 2007	Completed
Competition: Feasibility Study for	[45] Eli Brossell	BSCV 2006, MSCV 06-07	Spring 2006
the Expansion and Upgrade of	[46] Gil Samson	BSCV 2006	
the Northwest Water	[47] Thais Bocca	MSCV 2007 (FAU)	
Reclamation Facility to Meet	[48] Siswanto Utomo	MSCV 05-07	]
New TMDL Criteria"			
"Undergraduate Research:	[49] Brian Tiehen	BSCV 2007	Fall 2005
Development of Methods for			
Automatic Monitoring of			
Temperature for Bioassay			
Systems"			
"2005 FWEA Student Design	[50] Jane Gao	BSCV 2005 MSCV 2010 (FAU)	Completed
Competition: Transformation of	[51] Denise Barros	BSCV 2005	Spring 2005
Royal Lakes WWTP (Jacksonville,	[52] Ron Benson	BSCV 2005	
FL) Evaluation of Alternatives "	[53] Petersen Benjamin	BSCV 2005	
"Undergraduate Research:	[54] Eli Brossell	BSCV 2006	Completed
Method Development and			Spring 2005
Design of Bioassay Frame Unit"			
"Undergraduate Research:	[55] Felipe Pulido	BSCV 2005 MSCN 2008 (UTA)	Completed
Septic Tanks Data Collection"			Spring 2005
"Undergraduate Research: Field	[56] Mauricio Pico	BSCV 2005 MSCV 2010 (UPM)	Completed
Sampling in Dania Beach and			Spring 2005
Hollywood"	[57]	DCG/ 2005 MCG/ 2010 (511)	
"CGN4905 – Wastewater	[57] Jane Gao	BSCV 2005 MSCV 2010 (FAU)	Completed
Engineering"	[58] Denise Barros	BSCV 2005	Spring 2005
	[59] Ron Benson	BSCV 2005	-
<b>"</b>	[60] Petersen Benjamin	BSCV 2005	<u> </u>
"CGN4905 – Water Supply and	[61] Felipe Pulido	BSCV 2005 MSCN 2008 (UTA)	Completed
Treatment"	[62] Evan Kennedy	BSCV 2004 MSCV 2009 (FAU)	Summer 2004
	[63] Henry Johnston	BSCV 2005	_
	[64] Jason Debrincat	BSCV 2005	
"2004 FWEA Student Design	[65] Ronald Desbrunes	BSCV 2004, MSCV 2006 (FAU)	Completed
Competition: Perspectives and	[66] Michael Genduso	BSCV 2004, MSCV 2006 (FAU)	Spring 2004
Analysis of a New Aerobic	[67] Jennifer Magnus	BSCV 2004	1
Digestion System for the East	[68] Frédéric Morin	BS/MS 2005	_
Central Regional Water	[69] Jean Aubanel	BS/MS 2005	]
Reclamation Facility (ECRWRF)	[70] Matthew Maxey	BSCV 2004	
West Palm Beach, Florida"			

### **Professional Development Activities Related to Research Curriculum**

- [1] Participant, "Curriculum Mapping Workshop" (March 12, 2015)
- [2] Member of the Undergraduate Research Curriculum Committee (Spring 2015-Present)
- [3] Participant, "Intro to DTD Assessment Rubric and Applying Rubric to Assignment/Course Plan Worksheet" (February 18, 2015)
- [4] Participant, "Backward Design: Assessment, Assignment Plan and Course Plan Workshop" (January 30, 2015)
- [5] Participant, "Introduction to the Curriculum Grants Program and Integrating URI into the Curriculum (January 16, 2015)
- [6] Undergraduate Research Faculty Liaison, College of Engineering and Computer Science (Fall 2014-Present)
- [7] Participant, "LiveText Training for DTD Curriculum Grants" (Spring 2014-Fall 2014)
- [8] Co-Leader, "Criteria and Strategies for Student Success During Their Academic Careers and Beyond" (Fall 2013-Spring 2014)
- [9] CEL3001 Quality Matters Course (Summer 2013)
- [10] Blackboard Exemplary Course Catalyst Program (Spring 2013)
- [11] Co-Leader and Facilitator, "FLC for the QEP Distinction Through Discovery," Co-leader of FLC and Facilitator for "Distinction Through Discovery: Basic concepts and best practices to implement and integrate research and inquiry into the curriculum." (Fall 2012 Spring 2013)
- [12] Participant, "Dual-Listed Courses" (Fall 2012-Spring 2013)
- [13] Sloan-C Online Education Retention Strategies Teaching Certification (October 2012)
- [14] Co-Leader, 'Research, Creative and Scholarly Activities into the Undergraduate Curriculum" (Fall 2011-Spring 2012)
- [15] 5th Annual Florida Statewide Symposium: Engagement in Undergraduate Research, Orlando, FL (October 19-20, 2012)
- [16] Participant, "Assessment Technologies and Strategies" (Fall 2010-Spring 2011)
- [17] CEL1001 eLearning Designer/Facilitator Certification Course (Fall 2011)
- [18] Contributor, "Engineering Sustainability Task Force FLC" (Fall 2009-Spring 2010)
- [19] Participant, "Inquiry-Based Learning FLC" (Fall 2009-Spring 2010)
- [20] Writing Across the Curriculum Certification Training (May 12-14, 2010)
- [21] Assessment Training (January 15, 2010)
- [22] American Society of Engineering Educators, SE Section Conference, University of Memphis, TN (April 6-8, 2008)
- [23] Banner 7.0 Navigation Training (June 19, 2006)
- [24] Faculty Workshop: Getting Students Beyond Google: Promoting Information Literacy (November 12, 2004)
- [25] Continuing Education Forum: Assessments in Blackboard (September 21, 2004)
- [26] Discussion of Hands-on Teaching Options, Dr. T. Pusiteri (September 1, 2004)
- [27] Faculty Workshop: Teaching with Less Time and Stress: Improving Teaching Efficiency and Effectiveness (February 27, 2004)

#### **Laboratory Development**

In 2003, no laboratory facilities for Environmental Engineering-related research existed. Laboratory development activities include securing suitable space, designing architectural layouts, engineering ventilation/security/safety systems, procuring equipment/supplies, maintenance, and supervision.

- [1] Research Lab, Laboratories for Engineered Environmental Solutions (2003 Present)
- [2] Teaching Lab, ENV3001 Environmental Science & Engineering Lab (2005 Present)

- [3] Teaching Lab, ENV3001L Chemistry for Engineers Lab (2008–2010)
- [4] Teaching Lab, EGN2095L Engineering Chemistry (2010 Present)
- [5] Teaching Lab, CGN4803 Civil Engineering Design Lab (2010 Present)
- [6] Teaching Lab, Biology for Engineers Lab (2010)
- [7] Teaching/Research Lab, Civil Engineering Materials and Environmental Lab Major Renovation (2014)
- [8] Research Lab, Multidisciplinary Biotech Research Lab (2014)
- [9] Teaching Lab, Library AutoCAD Lab (2015)
- [10] Teaching Lab, Capstone Design Lab/SEFLIN room (2015)

## Advising of Student Clubs (2003 – Present)

- [1] Faculty Advisor, FAU Joint Student Chapter of the Florida Water Environment Association and the American Water Works Association (August 2004 Present)
- [2] Faculty Advisor, Tau Beta Pi Engineering Honor Society, Florida Epsilon Chapter (March 2005 Present)

### **Undergraduate Research Intensive Courses**

#### **Capstone Design Courses**

Another extremely important aspect of the undergraduate program is the two-semester capstone series. This sequence allows our students to smoothly transition from the classroom to the professional world. In the summer of 2004, I was asked to develop a new direction for this course. I teamed up with Dr. Bloetscher, who at the time was an Adjunct Professor, Albert Muniz (Professional Engineer and Vice President of Hazen and Sawyer, P.C., an International Engineering Consulting Firm), and Michael Singer (eminent scholar in the College of Arts and Letters), a world-renown artist and architect. Mr. Singer had just finished teaching a course (Creative Thinking in the Public Realm) comprised of multidisciplinary doctoral candidates in which they developed a conceptual design problem that challenges the built environment. These students lamented that they could not turn their concepts into reality, but that is where civil engineers excel. So we created a design project around the concept developed in Singer's course and allowed our students the freedom to come up with novel and creative solutions to the design challenges posed by their real-world clients. While our students were developing their designs, improving their presentation and technical writing skills, learning engineering economics and ethics and experiencing how "real" engineering gets done, Singer and his team were working tirelessly to raise funding to actually build this project, "Transformations." When our students proposed their final designs with high performance building features and innovative solutions, the design professionals that were hired for this real project were taking notes. In fact, one of our students was hired to incorporate some of the more unique aspects of the design into the final construction plans. Both capstone courses are also part of the Writing Across the Curriculum (WAC) program. Without a doubt, this course is a very special experience for the students, and watching the transformation of our students into young professionals, right in front of your eyes, is incredibly rewarding.

#### **Undergraduate Research Courses**

I helped to develop a series of two (2) one-credit courses for the Distinction to Discovery (DTD) Undergraduate Research Initiative. The first course *CGN4910-Research 1* is an exposure level exploration in how to conduct undergraduate research with scaffolded student-centered learning and the companion course *CGN4911-Research 2* is an intensive industry-mentored or peer-mentored research project culminating in a deliverable such as a conference paper, journal article or scholarly

presentation. Back in 2009, I was awarded an assessment grant that led to a WAC curriculum development grant in 2010 to standardize our laboratory report writing rubrics across the junior level courses in our program. The same model is now being applied to improving our undergraduate research experiences in the senior level design courses through the recently awarded QEP Curriculum Grant in partnership with the Geosciences program in the Dorothy F. Schmidt College of Science and the Geomatics Engineering program.

### **External Grants With Funded Undergraduate Researchers**

Since 2003, Dr. Meeroff has been awarded  $\underline{21}$  externally funded grants as PI and another  $\underline{19}$  grants as Co-PI, for a total of \$10.1 million. The list that follows includes the grants in which undergraduate student research assistants were hired or mentored. From this list, 83% of Dr. Meeroff's research grants involve undergraduate researchers (n=33).

Title of Research	Funding Agency	PI (Co-PI)	Period	Amount
[1] "Critical Examination of Leachate Collection Syste Clogging at SWA Disposal Facilities, Years 2 and 3"	ı	Schert (Townsend, Meeroff)	2013-2015	\$250,000 (\$70,000)
[2] "Safe Discharge of Landfill Leachate to the Environment	ent" Florida Center for Solid and Hazardous Waste Management	Meeroff	2013-2015	\$103,780
[3] "Assessing Options for On Leachate and Groundwate Management Strategies at Florida Landfills"	Florida Center for Solid and Hazardous Waste Management	Townsend (Meeroff)	2013-2014	\$69,500 (\$4,836)
[4] "Sustainable Management Pollutants Underneath Lar	ndfills" Florida Center for Solid and Hazardous Waste Management	Meeroff	2012-2013	\$40,000
[5] "Critical Examination of Leachate Collection Syste Clogging at SWA Disposal Facilities"	ı	Schert (Townsend, Meeroff)	2012-2014	\$150,000 (\$50,000)
[6] "Growing STEM Schools: Magnet Schools Assistand Program"	of Education"	Zilouchian (Meeroff and others)	2011-2014	\$8,642,395 (\$6,946)
[7] "Onsite Treatment of Leac Using Energized Processe		Meeroff	2011-2013	\$47,515
[8] "Pollution Prevention Tech Assistance Tool for Lean a Green Performance Meas	and Environmental Protection	Meeroff	2010-2012	\$25,000
[9] "Management of Subsurfa Reductive Dissolution Underneath Landfills"	Florida Center for Solid and Hazardous Waste Management	Meeroff	2010-2012	\$30,000
[10] "Water Quality Review of Membrane System Pre- Qualifications"	Calvin Giordano and Associates	Bloetscher (Meeroff)	2010-2011	\$56,074 (\$3,909)
[11] "Energized Processes for Onsite Treatment of Leach	and Hazardous Waste Management	Meeroff	2009-2011	\$55,000
[12] "Review of Coastal Water Quality Inputs"	Florida Water Environment Association Utility Council	Bloetscher Meeroff	2008-2009	\$25,000 (\$2,500)

Title of Research	Funding Agency	PI (Co-PI)	Period	Amount
[13] "Southeast Florida's Resilient Water Supply: Protecting it from the Likely Impacts of Climate	Bipartisan National Commission on Energy Policy	Murley (Bloetscher Meeroff)	2008-2009	\$75,000 (\$1,250)
Change" [14] "Green Lodging Performance Measures Phase 4"	Florida Department of Environmental Protection	Meeroff (Scarlatos)	2008-2009	\$12,215
[15] "Interactive Decision Support Tool for Leachate Management"	William W. "Bill" Hinkley Florida Center for Solid and Hazardous Waste Management	Meeroff (Teegavarapu)	2008-2009	\$40,000
[16] "Green Lodging Performance Measures Phase 3"	Florida Department of Environmental Protection	Meeroff (Scarlatos)	2008	\$8,206
[17] "Taylor County Source Tracking: Seasonal Variability Study"	Florida Department of Health	Meeroff (Bloetscher)	2007-2008	\$13,960
[18] "Taylor County Beaches Seasonal Water Quality Impacts"	Florida Department of Environmental Protection	Meeroff (Bloetscher)	2007-2008	\$23,891
[19] "Taylor County Source Tracking: Seasonal Variability Testing"	Florida Department of Health	Meeroff (Bloetscher)	2007	\$10,634
[20] "Determination of Water Use Profiles for Water Conservation"	Broward County Water and Wastewater Services	Bloetscher Meeroff	2007-2008	\$150,000 (\$1,777)
[21] "Year Two - Investigation of Energized Options for Management of Leachate"	William W. "Bill" Hinkley Florida Center for Solid and Hazardous Waste Management	Meeroff (Tsai)	2006-2008	\$45,000
[22] "Green Lodging Project Phase 2: Energy Efficiency and Clean Air Practices"	Florida Department of Environmental Protection	Meeroff (Scarlatos)	2006-2007	\$18,690
[23] "Water Quality Review, Membrane System Pre- Qualification Document Preparation, Membrane Testing and Selection"	Camp, Dresser, and McKee	Bloetscher (Meeroff)	2006-2007	\$67,287 (\$3,909)
[24] "Boynton Inlet Water Quality Testing Phase 2"	Hazen and Sawyer, P.C.	Bloetscher (Meeroff)	2006-2007	\$6,800 (\$281)
[25] "Laboratory Geotechnical Characterization of the SWA Western Landfill Site"	Camp, Dresser, and McKee	Sobhan (Meeroff)	2006	\$22,182 (\$1,102)
[26] "Green Lodging Project Phase 1: Solid Waste Management, Waste Reduction, and Water Conservation"	Florida Department of Environmental Protection	Meeroff (Scarlatos)	2006	\$18,695
[27] "Boynton Inlet Water Quality Testing Phase 1"	Hazen and Sawyer, P.C.	Bloetscher (Meeroff)	2006	\$6,234 (\$2,424)
[28] "Investigation of Energized Options for Management of Leachate"	Florida Center for Solid and Hazardous Waste Management	Meeroff (Tsai)	2005-2006	\$35,300
[29] "Investigation of Options for Long-Term Leachate Management"	Lanny and Kay Hickman Intern Program, Solid Waste Association of North America	Meeroff	2005-2006	\$1,500 + stipend
[30] "Sediment Toxicity Bioassay"	Cepemar	Meeroff	2005	\$3,797
[31] "Taylor County Beaches Pathogen and Nutrient Sources Assessment Study"	Florida Department of Health	Meeroff (Bloetscher)	2005-2007	\$50,000
[32] "Investigation of Non-Energized Options for Management of Leachate and Wastewater"	Florida Center for Solid and Hazardous Waste Management	Englehardt (Meeroff)	2004-2005	\$25,000 (\$1,482)

Title of Research	Funding Agency	PI (Co-PI)	Period	Amount
[33] "Contribution of On-Site Treatment and Disposal Systems on Coastal Nutrient Loading"	Florida Water Environment Association Utility Council	Meeroff	2003-2004	\$20,000

## **Internal Grants**

Since 2003, Dr. Meeroff has been awarded  $\underline{9}$  internally funded grants as PI and another  $\underline{1}$  grant as Co-PI, for a total of \$422,848.

Title	e of Research	Funding Agency	PI (Co-PI)	Period	Amount
[1]	"Removing Methanol Additives from Fracking Fluids using Advance Oxidation Technology"	FAU Undergraduate Research Grant	Meyer and Meeroff	Pending	\$500
[2]	"Expanding the Student-Centered Undergraduate Research Culture Across the Curriculum"	FAU Office of Undergraduate Research and Inquiry	Meeroff & Scarlatos (Roberts, Arockiasamy, Nagajaran, Root, Markwith, Hindle)	2013-2015	\$20,000
[3]	"Determination of Appropriate Sample Size for Stucco Removal Studies"	FAU Undergraduate Research Grant	Shaw, Murphy, Trotsek and Meeroff	2014-5	\$1,000
[4]	"Vibration Table Experiments for Calcium Carbonate Crystal Growth in Leachate Pipes"	FAU Undergraduate Research Grant	Boulais, Harris, Purdy and Meeroff	2014-5	\$1,000
[5]	"eLearning Upgrade for Engineering Students"	Florida Atlantic University Technology Fee	Meeroff	2013	\$6,104
[6]	"Faculty Learning Community for the QEP"	FAU Center for Teaching and Learning	Peluso (Meeroff and others)	2012-2013	\$17,500 (\$2,500)
[7]	"eLearning Expansion in Engineering"	Florida Atlantic University Technology Fee	Meeroff	2012	\$12,224
[8]	"Research, Creative and Scholarly Activities into the Undergraduate Curriculum"	FAU Center for Teaching and Learning	Meeroff and Chamley-Wiik	2011-2014	\$3,150
[9]	"eLearning for Engineering Chemistry"	FAU Center for eLearning	Meeroff	2011-2012	\$3,000
[10]	"Department of Civil, Environmental, and Geomatics Engineering WAC Curriculum Development Grant"	FAU University Center for Excellence in Writing (Writing Across the Curriculum)	Meeroff (Scarlatos and Arockiasamy)	2010-2011	\$2,000
	"Investigative Learning-Centered Assessment in Undergraduate Engineering Coursework"	FAU Office of Assessment	Meeroff (Sobhan and Yong)	2010	\$8,270
[12]	"Plug Flow Reactor Model for Photocatalytic Oxidation of Leachate"	FAU Undergraduate Research Grant	Reichenbach and Meeroff	2010	\$600

### Publications Relevant to Undergraduate Research or Involving Undergraduate Researchers

- [1] D. Chamley-Wiik, K. Dunn, P. Heydet-Kirsch, M. Holman, **D.E. Meeroff**, and J. Peluso. (2014). "Scaffolding the development of student research skills for capstone experiences: A multi-disciplinary approach." *CUR Quarterly, Volume 34, Number 4, 18-25*.
- [2] **D.E. Meeroff**, F. Bloetscher, S.C. Long, and T. Bocca (2014). "The Use of Multiple Tracers to Evaluate the Impact of Sewered and Non-Sewered Development on Coastal Water Quality in a Rural Area of Florida." *Water Environment Research*, Volume 86, Number 5, 445-456.
- [3] **D.E. Meeroff** and F. Youngman (2013). "Onsite Treatment of Leachate Using Energized Processes," Final Report for the William W. "Bill" Hinkley Center for Solid and Hazardous Waste Management, Gainesville, FL. Report# 1132023.
- [4] D.E. Meeroff and Ahmed Albasri (2012). "Management of Subsurface Reductive Dissolution Underneath Landfills," Final Report for the William W. "Bill" Hinkley Center for Solid and Hazardous Waste Management, Gainesville, FL. Report# 1032023. [Published September 2012 at <a href="http://www.hinkleycenter.org">http://www.hinkleycenter.org</a>]
- [5] **D.E. Meeroff** (2012). "Final Report: Pollution Prevention Technical Assistance Tool For Lean and Green Performance Measures," EPA Contract Number X9-95406010-0, Atlanta, GA.
- [6] **D.E. Meeroff** (2012). "User Manual Version 1.0 Pollution Prevention Technical Assistance Tool For Lean and Green Performance Measures," EPA Contract Number X9-95406010-0, Atlanta, GA.
- [7] **D.E. Meeroff**, F. Bloetscher, D. V. Reddy, F. Gasnier, S. Jain, A. McBarnette and H. Hamaguchi (2012). "Application of photochemical technologies for treatment of landfill leachate," *Journal of Hazardous Materials*, Volume 209–210, pp. 299–307.
- [8] **D.E. Meeroff** (2012). "Interim Report: Pollution Prevention Technical Assistance Tool For Lean and Green Performance Measures," EPA Contract Number X9-95406010-0, Atlanta, GA.
- [9] **D.E. Meeroff**, F. Gasnier, H. Hamaguchi, S. Jain, A. McBarnette, and R. Reichenbach (2011). "Technologies for Onsite Sustainable Leachate Management." *Waste Advantage*. February 2011: 20–24
- [10] D.E. Meeroff (2011). "Energized Processes for Leachate Management." Final Report for the William W. "Bill" Hinkley Center for Solid and Hazardous Waste Management, Gainesville, FL. Report# 0932015.
- [11] D.E. Meeroff and R. Teegavarapu (2011). "Interactive Decision Support Tool for Leachate Management." Final Report for the William W. "Bill" Hinkley Center for Solid and Hazardous Waste Management, Gainesville, FL. Report# 0832028. J. Pire-Schmidt, F. Bloetscher, D.E. Meeroff, T.P. Carsey, J. Stamates, K. Sullivan, and J. Proni (2012) "Farfield modeling of the Boynton Inlet plume." Environmental Management and Sustainable Development, Volume 1, Number 2, pp. 74–89.
- [12] T. Carsey, N. Amornthammarong, J. Bishop, F. Bloetscher, C. Brown, J. Craynock, S. Cummings, P. Dammann, C. Featherstone, K. Goodwin, D.E. Meeroff, J. Proni, C. Sinigalliano, P. Swart, J. Stamates, and Jia-Zhong Zhang (2011). "NOAA Data Report AOML-XX: Boynton Inlet 48-hour Sampling Intensives, June and September, 2007," National Oceanographic and Atmospheric Administration Report, Key Biscayne, FL.

- [13] **D.E. Meeroff**, Y. Yong, and K. Sobhan (2010). "Summary Report: Investigative Learning-Centered Assessment in Undergraduate Engineering Coursework." FAU Office of Institutional Effectiveness & Analysis.
- [14] F. Bloetscher, **D.E. Meeroff**, A. Toro (2010). "Concentrating the Concentrate Pointing to Solutions for Concentrate Management," *International Desalination Association Journal of Desalination*, Volume 1, Number 1. pp. 39–51.
- [15] J. Proni, M. Adler, N. Amornthammarong, J. Bishop, F. Bloetscher, T. Carsey, J. Craynock, S. Cummings, P. Dammann, C. Drayer, C. Featherstone, D.E. Meeroff, K. Goodwin, E. Peltola, D. Pierrot, C. Sinigalliano, P. Swart, J. Stamates, K. Sullivan, R. Wannikhof, and Jia-Zhong Zhang (2009). "Final Report: An Investigation of the South Central Regional Wastewater Treatment Plant Ocean Outfall and Coastal Environment," Ocean Chemistry Division, Atlantic Oceanographic and Meteorological Laboratory, Miami, Florida; Rosenstiel School of Marine and Atmospheric Sciences, University of Miami; Cooperative Institute for Marine and Atmospheric Studies, University of Miami; Florida Atlantic University, Boca Raton, Florida; Applied Research Center, Florida International University, Miami, Florida.
- [16] **D.E. Meeroff** and P.D. Scarlatos (2009). "Green Lodging Project Phase 4: Green Lodging Performance Measures: Implementation and Monitoring-Final Report," Florida Department of Environmental Protection, May 30, 2009.
- [17] R.Teegavarapu, and **D.E. Meeroff** (2008). "Water Quality Synoptic Survey Data Analysis for East Beach Water Control District," SFWMD, West Palm Beach, FL.
- [18] D.E. Meeroff, F. Gasnier, and C.T. Tsai (2008). "Investigation of Energized Options for Leachate Management: Year Two Tests of Advanced Oxidation Processes for Treatment of Landfill Leachate." Final Report Year 2 for the William W. "Bill" Hinkley Center for Solid and Hazardous Waste Management, Gainesville, FL. Report #0632018.
- [19] D.E. Meeroff and P.D. Scarlatos (2008). "Green Lodging Project Phase 3: Green Lodging Performance Measures: Implementation and Monitoring Progress Report: Action Plan Implementation Update," Florida Department of Environmental Protection, September 30, 2008.
- [20] F. Bloetscher, R. Teegavarapu, and **D.E. Meeroff** (2008). "Broward County Water Use Profile Report on the Selection of Statistically Valid Sample of Residences to be Monitored," Broward County Office of Environmental Services, Coconut Creek, FL.
- [21] D.E. Meeroff, F. Bloetscher, and T. Bocca (2008). "Taylor County Beaches Pathogen and Nutrient Sources Assessment Study: Seasonal Variability Study Findings," Florida Department of Health, Bureau of Onsite Sewage Programs, Research Review and Advisory Committee (RRAC) Meeting, Orange County Health Department, Orlando, FL, May 29, 2008.
- [22] F. Bloetscher and **D.E. Meeroff** (2008). "Collection System Odor Control Evaluation," SCRWT&DB and the City of Boynton Beach, FL.
- [23] F. Bloetscher and **D.E. Meeroff** (2008). "Review of Comments from Architect Regarding Analysis of Green Building Options and LEED Certification, Fairwinds Hotel," Miami Beach, FL.
- [24] D.E. Meeroff and F. Bloetscher (2008). "Taylor County Beaches Pathogen and Nutrient Sources Assessment Study: Seasonal Water Quality Impacts—Final Report, Revised per FDOH comments April 1, 2008" Florida Department of Health, Bureau of Onsite Sewage Programs and the Florida Department of Environmental Protection, Tallahassee, FL.

- [25] **D.E. Meeroff**, F. Bloetscher, T. Bocca, and F. Morin (2008). "Evaluation of Water Quality Impacts of On-Site Treatment and Disposal Systems on Urban Coastal Waters." *Water, Air, and Soil Pollution*. Volume 192, Number 1–4. pp. 11–24.
- [26] J.D. Englehardt, D.E. Meeroff, L. Echegoyen, F. Raymo, and T. Shibata (2007). "Oxidation of Aqueous EDTA and Associated Organics and Coprecipitation of Inorganics by Ambient Iron-Mediated Aeration." *Environmental Science and Technology*. Volume 41, Number 1. pp. 270– 276.
- [27] D.E. Meeroff and P.D. Scarlatos (2007). "Green Lodging Project Phase 2: Energy Efficiency and Clean Air Practices-Final Report," Florida Department of Environmental Protection, May 1, 2007.
- [28] F. Bloetscher and **D.E. Meeroff** (2007). "Analysis of Green Building Options and LEED Certification, Fairwinds Hotel," Miami Beach, FL.
- [29] F. Bloetscher and **D.E. Meeroff** (2007). "Boynton Inlet Sampling Event: NOAA Dye Study Coordination," South Central Wastewater Treatment and Disposal Board (SCWT&DB), April 4, 2007.
- [30] D.E. Meeroff and F. Bloetscher (2007). "Taylor County Beaches Pathogen and Nutrient Sources Assessment Study: Field Activity Report Seasonal High Water Table Elevation Event, September 2007," United States Environmental Protection Agency and the Florida Department of Health, Bureau of Onsite Sewage Programs.
- [31] **D.E. Meeroff**, F. Bloetscher, and T. Bocca (2007). "Taylor County Beaches Pathogen and Nutrient Sources Assessment Study: Field Activity Report Seasonal High Water Table Elevation Event, September 25-27, 2006," United States Environmental Protection Agency and the Florida Department of Health, Bureau of Onsite Sewage Programs.
- [32] F. Bloetscher and **D.E. Meeroff** (2007). "Boynton Inlet Sampling Event: Phase III-Final Report," South Central Wastewater Treatment and Disposal Board (SCWT&DB), February 24, 2007.
- [33] **D.E. Meeroff**, F. Morin, and F. Bloetscher (2007). "Coastal pollutant loading from on-site treatment and disposal systems." *Florida Water Resources Journal*. Volume 59, Number 3. pp. 42-53.
- [34] F. Bloetscher, D.E. Meeroff, M.E. Wright, D. Yang, R. Rojas, J. Polar, M. Laas, B. Bieler, D.-M.Sakura-Lemessy, S. Abdul Aziz, and C. Fiekle (2006). "Defining the concentrate disposal problem and identifying potential solutions." Florida Water Resources Journal. Volume 58, Number 4. pp. 25-30.
- [35] D.E. Meeroff, F. Gasnier, and C.T. Tsai (2006). "Investigation of Energized Options for Leachate Management: Photochemical: Iron-Mediated Aeration Treatment of Landfill Leachate." Final Report Year 1 for the William W. "Bill" Hinkley Center for Solid and Hazardous Waste Management, Gainesville, FL.
- [36] F. Bloetscher and **D.E. Meeroff** (2006). "Boynton Inlet Sampling Event: Phase II-Final Report," Submitted to Hazen and Sawyer, P.C. and South Central Wastewater Treatment and Disposal Board (SCWT&DB), November 1, 2006.
- [37] D.E. Meeroff, F. Bloetscher, D. Kuhn, and T. Bocca (2006). "Quality Assurance Project Plan: Taylor County Health Department Coastal Community Water Quality Study," United States Environmental Protection Agency and the Florida Department of Health, Bureau of Onsite Sewage Programs.

- [38] F. Bloetscher and D.E. Meeroff (2006). "Boynton Inlet Sampling Event: Phase 1-Final Report," Submitted to Hazen and Sawyer, P.C. and South Central Wastewater Treatment and Disposal Board (SCWT&DB). July 12, 2006.
- [39] D.E. Meeroff and P.D. Scarlatos (2006). "Green Lodging Project Phase 1: Solid Waste Management, Waste Reduction, and Water Conservation-Final Report," Florida Department of Environmental Protection, June 12, 2006.
- [40] J.D. Englehardt, Y. Deng, J. Polar, D.E. Meeroff, Y. Legrenzi, and J. Mognol (2006). "Options for Managing Municipal Landfill Leachate: Year 1 Development of Iron-Mediated Treatment Processes," Final Report to the Florida Center for Solid and Hazardous Waste Management, #0432024-06.
- [41] **D.E. Meeroff**, J.D. Englehardt, L. Echegoyen, and T. Shibata (2006). "Iron-Mediated Aeration: Evaluation of Energy-Assisted Enhancement for In Situ Subsurface Remediation." *Journal of Environmental Engineering*, Volume 132, Number 7. pp. 747–757.
- [42] **D.E. Meeroff** and F. Morin (2005). "Contribution of On-Site Treatment and Disposal Systems on Coastal Pollutant Loading," Proceedings of WEFTEC.05, Washington, DC.
- [43] **D.E. Meeroff**, F. Bloetscher, and F. Morin (2005). "Contribution of On-Site Treatment and Disposal Systems on Coastal Pollutant Loading, Final Report." Florida Water Environment Association Utility Council. July 2005.
- [44] A.B. Brown, S.E. McKay, and **D.E. Meeroff** (1997). "Scope and stereochemistry of [2+2] photocycloadditions between cyclopentenones and 1,2-dichlorocycloalkenes" *Synthetic Communications*. Volume 27, Number 11. pp. 1989–2012.

#### Sole-Authored Refereed Books and Textbooks

[1] **D.E. Meeroff** (2013). "Environmental Engineering and Science Laboratory Manual, 1<sup>st</sup> edition," Kendall Hunt Publishing Company. With Forward by Undergraduate Researcher David Cowan Jr. ISBN: 978-1-4652-2086-8.



**Environmental Science and Engineering Laboratory** 

Manual

Author(s): Daniel Meeroff

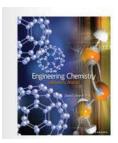
ISBN: 978-1-4652-2086-8

Edition: 1

Copyright: 2013

Pages: 102

[2] **D.E. Meeroff** (2013). "Engineering Chemistry Laboratory Manual, 1<sup>st</sup> edition," Kendall Hunt Publishing Company. ISBN: 978-1-4652-1599-4.



**Engineering Chemistry Laboratory Manual** 

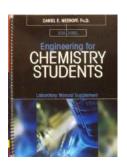
Author(s): <u>Daniel Meeroff</u> ISBN: 978-1-4652-1599-4

Edition: 1

Copyright: 2013

Pages: 80

[3] D.E. Meeroff (2011). "Engineering for Chemistry Students Laboratory Manual, 3rd edition," Cengage Learning Higher Education Publishing. ISBN-10: 1-133-4231-5; ISBN-13: 978-1-133-44231-8



Chemistry for Engineering Students Laboratory Manual, 2<sup>nd</sup> edition

Author(s): Daniel Meeroff, Ph.D.

ISBN-13: 978-1-133-44231-8

Edition: 3

Copyright: 2011

Pages: 88

[4] **D.E. Meeroff** (2011). "Environmental Engineering and Science Laboratory Manual, 3<sup>rd</sup> Edition," Cengage Learning Higher Education Publishing. ISBN-10: 1-133-44232-3; ISBN-13: 978-1-133-44232-5.



Environmental Engineering and Science Laboratory Manual, 3<sup>rd</sup> edition

Author(s): Daniel Meeroff, Ph.D.

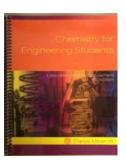
ISBN-13: 978-1-133-44232-5

Edition: 3

Copyright: 2011

Pages: 102

[5] D.E. Meeroff (2010). "Chemistry for Engineering Students Laboratory Manual, 1<sup>st</sup> edition," Cengage Learning Higher Education Publishing. ISBN-10: 1-111-95131-4; ISBN-13: 978-1-111-95131-3.



Chemistry for Engineering Students Laboratory Manual, 1st edition

Author(s): Daniel Meeroff, Ph.D.

ISBN-13: 978-1-111-95131-3

Edition: 1

Copyright: 2010

Pages: 77

## Presentations and Conference Papers with Undergraduate Research Contributions

- [1] D.E. Meeroff, A. Albasri, J. Lakner, D. Purdy, J. Dacey, and A. Harris (2015). "Groundwater Circulation Well Experiments and Safe Discharge of Landfill Leachate to the Environment and Leachate Collection System Clogging, Technical Advisory Group Update," HCSHWM TAG Meeting, Boca Raton, FL (January 30, 2015).
- [2] D.E. Meeroff, A. Albasri, J. Lakner, D. Purdy, J. Dacey, and A. Harris (2014). "Groundwater Circulation Well Technology and Safe Discharge of Landfill Leachate to the Environment and Critical Examination of Leachate Collection System Clogging, Technical Advisory Group Update," HCSHWM TAG Meeting, West Palm Beach, FL (May 27, 2014).
- [3] D.E. Meeroff, A. Albasri, F. Youngman and C. Lyons (2013). "Sustainable Management of Pollutants Underneath Landfills and Onsite Treatment of Leachate Using Energized Processes and Critical Examination of Leachate Clogging, Technical Advisory Group Update," HCSHWM TAG Meeting, Boca Raton, FL (March 15, 2013).
- [4] **D.E. Meeroff** and F. Bloetscher (2013). "Fun with Roof Design and Construction," 2013 STEM Summer Academy, Broward County Middle Schools, FAU Davie Campus (June 24-27, 2013).
- [5] **D.E. Meeroff** and F. Bloetscher (2013). "Water Management Issues Real World Problem and Design of Problem-Based Learning Curriculum," 2013 STEM Summer Teachers Academy, Broward County Middle Schools, FAU Boca Raton Campus (June 10-21, 2013).
- [6] D.E. Meeroff (2013). "BIG Ideas Workshop," 2013 STEM Summer Coordinators Academy, Broward County Middle Schools, FAU Seatech Campus (May 10, 2013).
- [7] D.E. Meeroff (2012). "Florida Green Lodging Train-the-Trainer Workshop: Conducting Effective Assessments," Central Florida Green Lodging Training, Hilton Garden Inn, Orlando, FL (November 14, 2012), Comfort Inn, Orlando, FL (August 8, 2012), and Embassy Suites, Orlando, FL (May 9, 2012).
- [8] **D.E. Meeroff** (2012). "LEEDing in Green Building Engineering Design," STEM Summer 2012 Teacher Academy, Broward County Middle Schools, FAU Boca Raton, FL (June 20-22, 2012).
- [9] D.E. Meeroff and Yan Yong (2012). "Bridge Design and Construction," STEM Summer 2012 Student Academy, Broward County Middle Schools, FAU Davie Campus (June 11-14 and June 25-28, 2012).
- [10] **D.E. Meeroff** and D. Cowan (2012). "Undergraduate Research in Civil Engineering Panel for the Quality Enhancement Plan Kick-Off Meeting," FAU Wimberley Library 4<sup>th</sup> Floor, Boca Raton, FL (October 10, 2012).
- [11] **D.E. Meeroff**, K. Kohn, T. Townsend, and J. Schert (2012). "Leachate Clogging at the Solid Waste Authority of Palm Beach County," Hinkley Center for Solid and Hazardous Waste Management, Gainesville, FL (November 15, 2012).
- [12] Mirya Holman and **D.E. Meeroff** (2012). "Out of the Classroom and Into Our Research: Using Directed Independent Studies and Other Co-Curricular Activities To Promote Undergraduate Research." 5<sup>th</sup> Annual Florida Statewide Symposium: Engagement in Undergraduate Research, University of Central Florida (October 20, 2012). [Published in Proceedings]

- [13] D.E. Meeroff, A. Albasri, and F. Youngman (2012). "Management of Subsurface Reductive Dissolution Underneath Landfills and Onsite Treatment of Leachate Using Energized Processes, Technical Advisory Group Update," HCSHWM TAG Meeting, Boca Raton, FL (November 2, 2012).
- [14] **D.E. Meeroff** (2012). "Management of Subsurface Reductive Dissolution Underneath Landfills and Onsite Treatment of Leachate Using Energized Processes, Technical Advisory Group Update," HCSHWM TAG Meeting, Boca Raton, FL (February 17, 2012).
- [15] **D.E. Meeroff** (2011). "Environmental Management Technologies," Seminar on Innovative and Sustainable Engineering: Integrating Research and Real World Practice, Florida Atlantic University, Boca Raton, FL. (November 18, 2011).
- [16] **D.E. Meeroff** (2011). "Energized Processes for Onsite Treatment of Leachate and Management of Subsurface Reductive Dissolution Underneath Landfills, Technical Advisory Group Update," HCSHWM TAG Meeting, Boca Raton, FL (February 25, 2011).
- [17] **D.E. Meeroff** (2011). "Green Building Concepts in the Engineering Curriculum," Learn Green: Green Schools Conference and Expo. Dreyfoos School of the Arts, West Palm Beach, FL. (November 11, 2011). [Presenter, Published abstract in Proceedings]
- [18] D.E. Meeroff, P.D. Scarlatos, and M.Arockisasamy (2011). "Effectiveness of Writing Across the Curriculum (WAC) Measures in Junior Level Civil Engineering Laboratory Coursework," FAU Writing Across the Curriculum Spring Reception, Boca Raton, FL (March 16, 2011).
- [19] **D.E. Meeroff** (2011). "Green Trends in the Hospitality Industry: Green Lodging Decision Support Tool," United States Green Building Council Broward Branch Hospitality Seminar, Broward County Convention Center, Ft. Lauderdale, FL (February 15, 2011).
- [20] D.E. Meeroff (2011). "The Art and Science of Assessing a Sustainable Lodge: Focus on Water, Energy and Waste Assessments," Third Annual Green Lodging and Hospitality Conference. DoubleTree Universal Orlando, FL. (November 8, 2011). [Published in Online Proceedings]
- [21] D.E. Meeroff (2011). "Online Decision Support Tool for the Green Hospitality Industry," Third Annual Green Lodging and Hospitality Conference. DoubleTree Universal Orlando, FL. (November 7, 2011). [Presenter, Published in Online Proceedings]
- [22] D.E. Meeroff (2010). "Pathways to Sustainable Hospitality: The South Beach Experience," National Pollution Prevention Roundtable National Environmental Summit. DoubleTree International Drive, Orlando, FL. May 25-27, 2010.
- [23] D.E. Meeroff (2010). "Advanced Oxidation Technology for Sustainable Leachate Management," WASTECON–2010. Boston Convention and Exhibition Center, Boston, MA. August 15–17, 2010. [Published in Proceedings]
- [24] F. Bloetscher, **D.E. Meeroff**, L. Hess, G. Beck, L. Simons, and M. Arockiasamy (2010). "FAU Explores Green Energy For Water Treatment," Proceedings of the International Conference on Environmental Sustainability with Green Building Technology, March 15–17, 2010, Meenakshi Sundarajan Engineering College, Tumil, India. [Published in Proceedings]
- [25] **D.E.** Meeroff (2010). "Energized Processes for Onsite Treatment of Leachate and Interactive Decision Support Tool for Leachate Management, Technical Advisory Group Update," HCSHWM TAG Meeting, Boca Raton, FL. June 25, 2010.

- [26] **D.E. Meeroff** and R. Teegavarapu (2009). "Interactive Decision Support Tool for Leachate Management Technical Advisory Group Update," HCSHWM TAG Meeting, Boca Raton, FL. April 17, 2009.
- [27] **D.E. Meeroff** (2009). "Advanced Greening: Green Hospitality Updates," 2<sup>nd</sup> Annual Green Lodging and Hospitality Conference: Greener Roads Ahead. Rosen Centre Hotel, Orlando, FL. December 11, 2009. [Published in Online Proceedings]
- [28] D.E. Meeroff (2009). "Green Lodging Performance Measures Study," Florida Green Lodging Workshop, Hilton University of Florida Conference Center, Gainesville, FL, November 11, 2009. [Published in Online Proceedings]
- [29] **D.E. Meeroff** (2009). "Process Development for Onsite Treatment of Leachate," FAU-ASCE Joint Chapter Meeting, Boca Raton FL. June 11, 2009.
- [30] D.E. Meeroff (2009). "Green Lodging and Hospitality Track: Lessons Learned from Greening South Florida Hotels," 2009 South Florida Green, Energy & Climate Conference/Expo, West Palm Beach Convention Center, West Palm Beach, FL, March 11, 2009. [Published in Online Proceedings]
- [31] **D.E. Meeroff** (2009). "Florida Green Lodging Performance Measures Study," South Florida Green Lodging Workshop, Miami Beach Convention Center, Miami Beach, FL, March 4, 2009. [Published in Online Proceedings]
- [32] D.E. Meeroff and F. Bloetscher (2009). "Lab.EES Capabilities for CIMAS," CIMAS Meeting, Seatech Campus, Dania Beach, FL. October 21, 2009.
- [33] **D.E. Meeroff** (2009). "Combining Science and Technology to Protect and Conserve Our Environment," Geosciences Colloquim GEO6920. September 18, 2009.
- [34] D.E. Meeroff and R. Teegavarapu (2009). "Interactive Decision Support Tool for Leachate Management A Primer for the Landfill Committee," FS/SWANA Annual Meeting, Naples, FL. July 22, 2009.
- [35] D.E. Meeroff (2009). "Photocatalytic Oxidation for Removal of EDCs," Florida Water Resource Conference 2009, Workshop on Advanced Oxidation Processes for Emerging Contaminant Removal, West Palm Beach Convention Center, West Palm Beach, FL, April 6, 2009. [Published in Proceedings]
- [36] F. Bloetscher, **D.E. Meeroff**, and A. Toro (2008). "Concentrating the Concentrate-Pointing to Solutions for Concentrate Management," Proceedings of the Florida Water Resources Conference, Tampa Convention Center, Tampa, FL, May 5-7. 2008. [Published in Proceedings]
- [37] D.E. Meeroff (2008). "Green Lodging Performance Measures Study," Florida Green Lodging Conference 2008, Hilton University of Florida Conference Center, Gainesville, FL (November 11, 2008)
- [38] L. Sobel and **D.E. Meeroff** (2008). "Florida Green Lodging Program Phase 4 Pilot Study, Building the Business Case for Sustainability," Water, Water, Everywhere, presented by Fertile Earth Foundation, The Raleigh Hotel, and VeeV acai, Miami Beach, FL, September 27, 2008.
- [39] C. Sinigilliano, D. Wanless, T. Scott, J. Stewart, **D.E. Meeroff**, F. Bloetscher, and K. Goodwin. (2008). "Molecular Microbial Water Quality Assessment and Bacterial Source Tracking with the Florida Area Coastal Environment (FACE) Program," 2008 Ocean Sciences Meeting. [Presented by T. Carsey, Published in Proceedings]

- [40] F. Gasnier and **D.E. Meeroff** (2008). "First Application of the Photochemical Iron Mediated Aeration Treatment on Simulated and Class I Landfill Leachate," Global Waste Management Symposium, September 7-10, 2008, Copper Mountain Conference Center, Colorado. [Published abstract in Proceedings]
- [41] F. Bloetscher, **D.E. Meeroff**, and A. Toro (2008). "Concentrating the Concentrate-Pointing to Solutions for Concentrate Management," AWWA Annual Conference and Exposition Proceedings, Atlanta, GA, June 8-12, 2008. [Co-author, Presented by F. Bloetscher, Published in Proceedings]
- [42] **D.E.** Meeroff (2008). "Integrating Green Building Concepts in the Civil Engineering Capstone Design Sequence," ASEE-SE Section Conference and Meeting: Building Bridges: Making the Connections that Facilitate Engineering Education. University of Memphis, Memphis, TN. April 6 8, 2008. [Published in Proceedings]
- [43] F. Bloetscher and **D.E. Meeroff** (2007). "Septic Tank Contributions to the Nutrient Mass Balance of the Florida Coast," Ground Water Protection Council, GWPC 2007 Annual Forum, Ground Water Today's Critical Resource, September 15-19, 2007, Bahia Resort Hotel, San Diego, CA. [Published in Proceedings]
- [44] F. Bloetscher and **D.E. Meeroff** (2007). "Implications of Nutrients in Coastal Environments," Water Rights & Water Quality Track, *National Association of Environmental Professionals Annual Conference*, Holiday Inn International Drive Resort, Orlando, FL, April 23-25, 2007. [Principle author, Presented by F. Bloetscher, Published in Proceedings]
- [45] **D.E. Meeroff** (2007). "Integrating Green Building Concepts into the Engineering Curriculum." Air & Waste Management Association Florida Section 2007 Annual Conference, Embassy Suites Deerfield Beach Resort, Deerfield Beach, FL. October 30, 2007.
- [46] F. Gasnier and **D.E. Meeroff** (2007). "Photochemical Iron-Mediated Aeration for Management of Landfill Leachate." Air & Waste Management Association Florida Section 2007 Annual Conference, Embassy Suites Deerfield Beach Resort, Deerfield Beach, FL. October 29, 2007.
- [47] **D.E. Meeroff** (2007). "Green Lodging Phase 3 Update" Northwood University, West Palm Beach, FL. December 10, 2007.
- [48] **D.E. Meeroff** (2007). "Green Building Concepts in the University Curriculum." FAU Boca Campus Sustainability Day, Majestic Palm Room, Boca Raton, FL, October 24, 2007.
- [49] **D.E. Meeroff** (2007). "Integrating Green Building Concepts into the Engineering Curriculum." Getting to Green, 2<sup>nd</sup> Annual Campus and Community Sustainability Conference, Florida State University, Tallahassee, FL, October 14-16, 2007. [Published abstract in Proceedings]
- [50] D.E. Meeroff and P.D. Scarlatos (2007). "Cost Savings from Waste Reduction, Energy Efficiency and Water Conservation," Special Presentation as part of the Florida Restaurant and Lodging Association Show: How Florida's Hospitality Industry Can Save Money While Protecting the State's Environment, Orange County Convention Center, Orlando, FL, September 7, 2007.
- [51] D.E. Meeroff (2007). "Overview for LEED Certification and FAU's LEED programs," Palm Beach County Green Building Meeting, Palm Beach County Health Department, West Palm Beach, FL, August 9, 2007.
- [52] T. Bocca, D.E. Meeroff, and F. Bloetscher (2007). "Using Multiple Tracers to Evaluate Coastal Water Quality Impacts for Sewered and Non-Sewered Areas," In World Environmental and

- Water Resources Congress 2007: Restoring Our Natural Habitat, Tampa Marriot Waterside, Tampa, FL. May 15–19, 2007. p. 1-16. ASCE [Poster Session, Published abstract in Proceedings], http://dx.doi.org/10.1061/40927(243)611
- [53] F. Bloetscher and D.E. Meeroff (2007). "Re-visiting the Comparative Assessment of Municipal Wastewater Disposal Methods in Southeast Florida," World Environmental and Water Resources Congress 2007, Tampa Marriot Waterside, Tampa, FL. May 15–19, 2007. [Published in Proceedings]
- [54] A. Toro, F. Bloetscher, and **D.E. Meeroff** (2007). "Concentrating Concentrate: Is it a Real Opportunity?" FS/AWWA 2007 Fall Conference, Track B3 Concentrate Disposal Options, Caribe Royale Resort, Orlando, FL. November 13, 2007. [Published in Proceedings]
- [55] F. Bloetscher, **D.E. Meeroff**, and A. Muniz (2007). "Results of Preliminary Modeling of Class I Injection Wells in Southeast Florida," Florida Water Resources Conference, Orlando, FL, April 15-17, 2007. [Published in Proceedings]
- [56] D.E. Meeroff (2007). "Lost Opportunities: By Not Going Green from the Beginning, Achieving LEED Becomes Tricky," Build Green/Save Green Conference, Florida Atlantic University, March 7, 2007.
- [57] D.E. Meeroff and F. Gasnier (2006). "Landfill Leachate Project Year 1 Summary and Conclusions," Bill Hinckley Center for Solid and Hazardous Waste Management Technical Advisory Group Meeting, Solid Waste Authority of Palm Beach County Administration Building Auditorium, West Palm Beach, FL October 27, 2006.
- [58] **D.E. Meeroff** and F. Gasnier (2006). "Landfill Leachate Project Findings and Needs," FCSHWM TAG Meeting, Solid Waste Authority of Palm Beach County Visitor's Center, Technical Advisory Group Meeting, West Palm Beach, FL, May 18, 2006.
- [59] **D.E. Meeroff** and F. Bloetscher (2006). "Resolving Biofilms in Buildings and Compounds," FS/AWWA 2006 Fall Conference, Renaissance Orlando Resort at Seaworld, Orlando, FL. November 29, 2006. [Published in Proceedings]
- [60] **D.E. Meeroff** and P.D. Scarlatos (2006). "Cost Savings from Waste Reduction and Water Efficiency," Special Presentation as part of the Florida Restaurant and Lodging Association Show: How Florida Green Lodging Can Save You Money While Protecting Our Resources, Orange County Convention Center, Orlando, FL, September 9, 2006. [Published in online Proceedings]
- [61] D.E. Meeroff, F. Bloetscher, and F. Morin (2006). "Contribution of On-Site Treatment and Disposal Systems on Coastal Pollutant Loading in Southeast Florida," *Proceedings of the Florida* Water Resource Conference, Track C-4: Septic Tank Challenges. Orange County Convention Center, Orlando, FL. April 11, 2006. [Published in Proceedings, First Place Poster]
- [62] **D.E. Meeroff** (2006). "Civil and Environmental Engineering Research at Florida Atlantic University," Florida Water Environment Association Southeast Florida Chapter General Meeting, The Westin Hotel, Fort Lauderdale, FL, November 8, 2006.
- [63] D.E. Meeroff (2006). "Green Buildings and Global Climate Change," Green Buildings and Sustainable Construction Technology: A Collaboration to Define Future Directions. Kovens Conference Center, Florida International University, Miami, FL, November 3, 2006.
- [64] **D.E. Meeroff** (2006). "Green Lodging Project at Florida Atlantic University," Green Lodging Workshop & Assessor Training, The Four Seasons Hotel, Miami, FL, July 26, 2006.

- [65] E. Brossell, J. Bolivar, A. Watt, and **D.E. Meeroff** (2006). "Environmental Experience through Community Outreach," The Fourth Latin American and Caribbean Consortium of Engineering Institutions (LACCEI). Poster Session. June 21–23, 2006, Mayagüez, Puerto Rico. [Co-author, Presented by E. Brossell, Published in Proceedings]
- [66] T. Bocca and D.E. Meeroff (2006). "The Use of Multiple Tracers to Determine the Source of the Contamination on Coastal Environments," The Fourth Latin American and Caribbean Consortium of Engineering Institutions (LACCEI). Poster Session. June 21–23, 2006, Mayagüez, Puerto Rico. [Co-author, Presented by T. Bocca, Published in Proceedings]
- [67] D.E. Meeroff, T. Martin, F. Gasnier, and J. Schert (2006). "FAU Investigation of Energized Options for Leachate Management," 3rd Expert Advisory Panel Meeting of the Alliance for Collaborative Research in Alternative Fuel Technology (ALL-CRAFT), Midwest Research Institute (MRI), Kansas City, MO. February 27, 2006.
- [68] **D.E. Meeroff** (2005). "FAU Student Chapter Activities," WEFTEC.05, Washington, DC. October 30–November 2, 2005.
- [69] D.E. Meeroff and F. Morin (2005). "Contribution of On-Site Treatment and Disposal Systems on Coastal Pollutant Loading," *Proceedings of WEFTEC.05*, Washington, DC. October 30–November 2, 2005. [Presenter, Published in Proceedings <a href="http://dx.doi.org/10.2175/193864705783812891">http://dx.doi.org/10.2175/193864705783812891</a>]
- [70] **D.E. Meeroff** and F. Morin (2005). "Florida Atlantic University Florida Water Environment Association Student Chapter Highlights," *WEFMAX 2005 Member Association Exchange Session*, Highlands Beach, FL, March 3–5, 2005.
- [71] **D.E. Meeroff** (2005). "Laboratories for Engineered Environmental Solutions: Findings for the Homeowner Association of Melaleuca Gardens, Dania Beach, FL," April 13, 2005.
- [72] J. Wietgrefee, A. Muniz, and **D.E. Meeroff** (2005). "Evaluation of Pretreatment Unit Processes for a Representative Nanofiltration Facility," *Proceedings of the FS/AWWA 2005 Fall Conference*, Orlando, FL. November 29, 2005. [Published in Proceedings]
- [73] F. Bloetscher, D.E. Meeroff, M.E. Wright, D. Yang, R. Rojas, J. Polar, M. Laas, B. Bieler, D.-M. Sakura-Lemessy, S.A. Aziz, and C. Feikle (2005). "Defining the Concentrate Disposal Problem and Identifying Potential Solutions," *Proceedings of the FS/AWWA 2005 Fall Conference*, Orlando, FL. November 28, 2005. [Presented by F. Bloetscher, Published in Proceedings]
- [74] F. Morin and D.E. Meeroff (2005). "Contribution of On-Site Treatment and Disposal Systems on Coastal Nutrient Loading," Poster Competition, Florida Water Resources Conference 2005, Prime Osborn Convention Center and Adams Mark Hotel Jacksonville, FL (April 27, 2005). [First Place Poster]
- [75] Eli Brossell, F. Morin, and **D.E. Meeroff** (2005). "Contribution of On-Site Treatment and Disposal Systems on Coastal Nutrient Loading," Florida Branch of the American Society for Microbiology Annual Meeting (FL ASM), Best Western Rolling Hills Resort, Fort Lauderdale, FL. Invited Speaker. April 2, 2005. [Principle author, Presented by E. Brossell].
- [76] D.E. Meeroff (2005). "Preliminary Results from Photochemical Iron-Mediated Aeration Testing," University of Miami, TAG meeting for subcontract with J.D. Englehardt (Investigation of Non-Energized Options for Management of Leachate and Wastewater). June 22, 2005.
- [77] D.E. Meeroff, F. Bloetscher, and T. Mohr (2004). "PSI MicrO2 Process Treatment for Disinfection Byproduct Precursor Removal," *Proceedings of the FS/AWWA 2004 Fall Conference*, Emerging

- Issues, Session 3D: Water Treatment Experiences, November 14-18, 2004, Orlando, FL. November 17, 2004. [Published in Proceedings]
- [78] **D.E. Meeroff**, H. Solo-Gabriele, and R. Weisskoff (2004). "Water and Poverty in San Pedro Sula, Honduras," Joint Meeting of the FAU ASCE Student Chapter, ASCE Broward Branch, and ASCE Palm Beach Branch. Boca Raton, FL. April 13, 2004.
- [79] **D.E. Meeroff** (2004). "Preliminary Results of On-Site Treatment and Disposal Studies." National Oceanographic and Atmospheric Administration-Atmospheric and Ocean Meteorology Lab. Key Biscayne, FL. February 13, 2004.
- [80] S.E. McKay, **D.E. Meeroff**, A.B. Brown, P.D. Gaska, J.R. Lawrence, J.A. Phillips, M.S. Morton, and J.M. Parant (1995). "Synthetic Approaches To 1,2-Dihalocycloalkenes," *1995 Annual Meeting of the Florida Sections, American Chemical Society*, Abstract #p-26, May 5-6, 1995, Orlando, FL. [Published abstract in Proceedings]

Justin C. Dacey 8250 SW 44<sup>th</sup> Ct. Davie, FL 33328 954-856-4123 jdacey2@fau.edu

March 13, 2015

Office of Undergraduate Research and Inquiry Building GS-2, Room 209 Florida Atlantic University 777 Glades Road Boca Raton, FL 33431

To Whom It May Concern:

Please accept this letter of recommendation for Dr. Daniel Meeroff in consideration of the "Distinguished Undergraduate Research and Inquiry Mentor of the Year" award. I believe that Dr. Meeroff is a great asset to Florida Atlantic University for his dedication to developing FAU as a research university by demonstrating excellence as an undergraduate research mentor. He fosters collaboration among students in different disciplines, encourages critical thinking, and is always available for assistance related to research.

I was introduced to Dr. Meeroff in Fall of 2013 by a fellow undergraduate student who was assisting in FAU's Laboratory for Engineered Environmental Solutions (LabEES). Dr. Meeroff offered me a position helping with research for the "Critical Examination of Leachate Clogging", a joint project with the University of Florida being performed at the Solid Waste Authority of Palm Beach County (SWA). Dr. Meeroff made me feel like part of the team on my first visit to SWA by introducing me to engineers, consultants, and fellow researchers. He encouraged my input on this first visit, which helped to develop my confidence offering input and collaborating with the team.

During my time assisting in LabEES, I have been amazed at the support Dr. Meeroff has provided. He challenges students to explore aspects not previously considered or understood and makes time to be available for support and guidance. As the Assistant Department Chair, I recognize that his time is valuable yet he has always shown an effort to respond to all communication and makes time to consult with students outside his office hours. I cannot count the number of times I have passed by his office in the morning and evening seeing his office door open and speaking with students. This has shown me that Dr. Meeroff values students' time as much as his own, a characteristic of a great team mentor.

Another aspect of Dr. Meeroff's mentorship that impresses me is how he encourages students from all disciplines to learn about research in his laboratory. Although LabEES is within the scope of the Department of Civil, Environmental and Geomatics Engineering, he has invited students from other departments including the Department of Computer & Electrical Engineering and Computer Science and the Department of Ocean & Mechanical Engineering. I have had the pleasure of working with a variety of these students from different academic backgrounds. Incorporation of a variety of backgrounds displays Dr. Meeroff's commitment to introducing all students to the research process, not just students within his own department.

As a student in Dr. Meeroff's Civil Engineering Senior Design class, I have seen how he incorporates research principles into the classroom. Assignments in class encourage students to seek out sources that will aid them in the design process, teaching students how to work independently. He provides a starting point and lets students determine their own path to a final product, while also being available to provide assistance if students request it. One of the assignments given challenge students to understand the meaning

of "Question, Explore, and Pursue" and "Distinction through Discovery" and to determine how they can get involved with the Office of Undergraduate Research and Inquiry.

My time spent in the field, laboratory, and classroom is aiding my preparation for challenges beyond the Civil Engineering undergraduate program. Based on the positive experiences working with Dr. Meeroff, I have been considering attending graduate school at FAU, which was not in my post-graduate plan until recently. Dr. Meeroff has shown himself to be an excellent research mentor and I look forward to continuing our academic relationship.

Taking all of these positive experiences into consideration, I know that Dr. Daniel Meeroff is the best choice to recognize with the "Distinguished Undergraduate Research and Inquiry Mentor of the Year" award.

Please do not hesitate to contact me if you have any questions regarding Dr. Meeroff. I look forward to your choice to recognize his continuing commitment to growing FAU as a premier research university.

Sincerely,

Justin Dacey

Undergraduate Student

Department of Civil, Environmental and Geomatics Engineering

#### Statement of Undergraduate Student Mentorship Philosophy

Daniel E. Meeroff, Ph.D.

One of the main reasons that Florida Atlantic University is such a great institution right now is the *Distinction Through Discovery Undergraduate Research Initiative*. Imagine for a moment that you were back in school. In your formative years, you take huge general studies classes taught by graduate student teaching assistants who barely know more than you do. But at FAU, in your first semester, you get to take an introductory chemistry course from a real life environmental engineering faculty member, and if you are curious enough and courageous enough, you can approach him without fear and find out that he is working on cutting-edge new technologies to solve all of the world's problems, and he might even have an opening in his lab for you to work together with him on some truly game-changing research.

That's what I do. My laboratory and my field research teams are comprised almost entirely of undergraduate students with their fresh young minds that ask questions and lead us to new discoveries. This kind of learning is different from textbooks, quizzes, and "Google University." The learning that goes on in the classroom is just barely scratching the surface of the knowledge and experience gained working one-on-one with a world class FAU faculty member in the lab.

#### Why am I so passionate about undergraduate research, you ask?

Well, I got my start in research during my undergraduate studies. In my organic chemistry class of 250 students, my professor called me up (by name!) to the podium after class one day. He invited me to visit his lab (all 120 square feet!) and offered me to join his research team of doctoral candidates (and I was just a freshman). I learned invaluable research techniques, experimental analyses, data interpretation, lab safety, and even how to operate the most expensive research instruments on campus (by myself!). At the end of my time there, I helped write a research paper on bent benzene ring structures that was accepted for publication. I even got my name in the acknowledgments section of a Ph.D. dissertation. It was an incredible experience, which led to a summer undergraduate research fellowship at Harbor Branch Oceanographic Institution in which I worked with researchers on new analytical techniques to quantify chlorinated pesticides in leachate using gas chromatography/mass spectroscopy.

This gift, that enabled me to become the teacher and researcher that I am today, is a gift that I willingly share with my students here at FAU as Founder and Director of the *Laboratories for Engineered Environmental Solutions* (Lab.EES). In this capacity, I have supervised undergraduate research in the areas of environmental treatment process development, green building, resource conservation, solid and hazardous waste management, and environmental monitoring and surveillance. I really enjoy teaching and have received the highest faculty evaluations, while being nominated for several teaching awards by the students. In 2014, I received the *John J. Guarrera Engineering Educator of the Year Award* from the Engineer's Council, and I was voted the *FAU Distinguished Teacher of the Year* by the entire student body (this is the highest teaching honor at the university).

I have had wonderful experiences working with and advising students both as an instructor in the classroom and as a mentor in the research laboratory. My passion for teaching and working with young people is not limited to the engineering classroom, as students find me at all times of the day for advice on engineering topics, research ideas, and life in general. I am known throughout the University as someone who is dedicated to the craft of teaching and pursuing excellence in research and service to the students. My personal approach to undergraduate research mentorship is as follows.

## "Understand," "Explore," and "Inspire"

From a philosophical perspective, my goal in mentoring students is to help them learn while inspiring them to take on the challenges presented by real life. I call this approach: "understand," "explore," and "inspire."

In the "understand" phase, real world applications and challenges are presented in a non-threatening way (unlike the classroom exams and homework), which students appreciate, and my unique background allows me to draw from interdisciplinary resources not just in engineering, but also from the sciences (chemistry/biology) and policy as well as architecture, urban planning, and city management. This allows students to focus their attention on the problem solving in a guided exploration, as opposed to the dull task of just taking notes from a lecture. I find that my obvious passion for environmental engineering is contagious and stimulates the students to want to learn more by asking questions, formulating opinions, and identifying the entrepreneurial opportunities in the field. As a professor of an intellectual foundations course at the freshman level, I was able to meet students who had the spark of curiosity similar to mine. All I had to do to get them excited was to talk about the research question of one of my grants. I took on the role of storyteller at the end of class: "Wouldn't it be great if I could just figure out a way to fix this one little problem..." I would say to draw them in, and then the curious ones would gather closely around the storyteller with eyes wide as he unraveled the tale of the research question to them. The brave ones would interrupt the story to ask, "Did you try such and such...," and the storyteller would answer, and by the end of the story, new undergraduate researchers had joined the team, filled with wonder and excitement and energy to "explore" this new problem and come up with an elegant solution. Many times, the storyteller has found that students have taken the initiative to teach themselves more about the subject and truly understand the problem, which is the beginning of research.

In the "explore" phase, the environment that provokes thought and stimulates questions must be created. The key element for this type of atmosphere is caring, which occurs one-on-one. Students truly appreciate genuine care about their learning, their goals, and their progress. They also feel at ease when you value their opinions, and you show empathy for the difficult balance between work and studies and family. This builds trust, which allows students to open their minds and question interrelationships between theory and real world application, drawing from their own experience because everyone can relate to environmental issues in a deeply personal way. Now that the challenges are understood, it is time for the storyteller to become tour guide or mentor as we explore the possibilities, the engineering alternatives, and the experiments that will lead us to the solution we desire. This is where student research apprentices learn by doing and by making mistakes in safe environments and by straining to figure out why the data does not follow the expected results. This is the heart of research, which "inspires" us to do more and push the boundaries of knowledge.

In the "inspire" phase, which is the most rewarding of all, student researchers follow up their understanding of basic concepts and their exploration of opportunities to further develop their skills with projects born out of their own imaginations. This ultimately leads to further discovery or even more complex questions. During this phase, students are free to challenge the boundaries of convention, which opens their eyes to creativity in problem solving. The goal is to empower students to make connections with technical knowledge and explore the consequences of engineered systems on the environment, and all this is done with a fresh perspective, beyond the limits of traditional constraints. This is the phase in which the caterpillar magically transforms into the butterfly, spreads wings, and takes flight. In this part, the storyteller turned tour guide becomes like a **proud parent**, beams with joy as his little ones have come of age and are ready to take on the world of research on their own. The results are astounding, and in the process, the students end up inspiring me and opening my mind to new and endless possibilities.

Earlier this year, one student came to me after running an experiment and said in embarrassment, I think something went wrong, but then when we looked at the data together, we realized that the result was just unexpected (not wrong), and we have inadvertently opened a new door to discovery, which led to another grant and another publication. When the infectious wonder and curiosity leads to a breakthrough, we all learn something new and society is better for it. *That is why I am so passionate about undergraduate research*.