

## Amy B. Cerato, Ph.D., P.E.

### a. Professional Preparation

Lafayette College, Easton, PA	Civil Engineering	B.S. 1999
University of Massachusetts, Amherst	Geotechnical Engineering	M.S. 2001
University of Massachusetts, Amherst	Geosciences	M.S. 2004
University of Massachusetts, Amherst	Geotechnical Engineering	Ph.D. 2005

### b. Appointments

- Associate Professor (2011-present), Rapp Foundation Presidential Professor (2009-present), Assistant Professor (2005-2011), School of Civil Engineering and Environmental Science, University of Oklahoma, Norman. Classes Taught (\*Indicates classes developed): Surveying and Statistics, Soil Mechanics, Advanced Soil Mechanics, Foundation Engineering, Laboratory and In Situ Testing, \*Engineering Geology.
- Professional Engineer in the State of Oklahoma (PE 23099), 2007-present
- Oklahoma Department of Transportation (ODOT) Training/Certification Instructor (2012-present)

### c. Products (\*student author)

#### (i) Closely related to proposed project

- \*Lin, B. and Cerato, A.B. (2012). Prediction of Expansive Soil Swelling Based on Four Micro-scale Properties. *Bulletin of Engineering Geology and the Environment*. Volume 71, No. 1, pp. 71-78.
- \*Lin, B., Cerato, A.B., Madden, A.S. and Elwood Madden, M. (2013). Effect of Fly Ash on the Behavior of Expansive Soils: Microscopic Analysis. *Environmental Engineering and Geosciences (EEG)*. Vol.19, pp.85-94, DOI:10.2113/gsegeosci.19.1.85.
- \*Lin, B. and Cerato, A.B. (2013). Electromagnetic Properties of Expansive Soils under One-dimensional Deformation. *Acta Geotechnica*. Vol. 8, Issue 4, pp. 381-393. DOI: 10.1007/s11440-012-0198-z.
- \*Lin, B. and Cerato, A.B. (2014). Applications of SEM and ESEM in Microstructural Investigation of Shale-Weathered Expansive Soils along Swelling-Shrinkage Cycles. *Engineering Geology*. DOI: 10.1016/j.enggeo.2014.05.006.
- \*Lin, B. and Cerato, A.B. (2012). Investigation on Soil-Water Characteristic Curves of Untreated and Stabilized Highly Clayey Expansive Soils. *Geotechnical and Geological Engineering*. Vol. 30, No. 4, pp. 803-812.

#### (ii) Other significant publications

- Cerato, A.B., \*Taghavi, A., Muraleetharan, K.K., Miller, G.A. (2012). An Educational Module to Demonstrate the Seismic Behavior of Piles in Improved and Unimproved Soft Soils. *Journal of Professional Issues in Engineering Education and Practice*. DOI: 10.1061/(ASCE)EI.1943-5541.0000112.
- Cerato, A.B., Elton, D. and Shannon, D. (2012). Building Student Teamwork with the Student Geo-Challenge. *ASCE Journal of Professional Issues in Engineering Education and Practice*. Vol. 138, No. 1, pp. 14-20.
- Cerato, A.B., Miller, G.A. (2013). Determination of Soil Stabilization Content using X-Ray Fluorescence (XRF). *Geotechnical Testing Journal*. Vol. 36, No. 5, pp. 781-785. DOI:10.1520/GTJ20120186.
- \*Tabet, W., Cerato, A.B., Miller, G.A. (2014). The Influence of Clod Size and Moisture Condition on the Shearing Behavior of Compacted Soil. *Geotechnical and Geological Engineering (GEGE)*. DOI:10.1007/s10706-014-9796-x

\*Pinilla, J.D., Miller, G.A., Cerato, A.B. and Snethen, D.S. (2011). Influence of Curing Time on the Resilient Modulus of Chemically Stabilized Soils. *ASTM Geotechnical Testing Journal (GTJ)*. Vol. 34, No. 4. pp. 364-372.

#### **d. Synergistic Activities**

- (1) Supervision of Undergraduate Students: Advisor and Mentor: Research Experience for Undergraduates (REU) Program (7 F, 3 M)  
*Jacob Grasmick (2009) OU; Michael McLean (2008) The Citadel; \*\*Eric Holderby (2008) OU; Jessie Cunningham (2007) Clarkson University; Janessa Rosales (2007) California State University, Bakersfield; Ondra Dukes (2006) Old Dominion University; Rachael Oleski (2005) Lafayette College; Caitlin Puklin (2005) Princeton University; Ninfa Harrington (2002) UMass; Perry Stover (2001) UMass.*
- (2) Advisor and Mentor: Undergraduate Research Assistants (3 F, 12 M)  
*Nathan Ferraro (2013-current); \*\*Colin Osborne (2011); Jacob Grasmick (2009-2010); \*\*Michaela Campbell (2008-2009); \*\*Eric Holderby (2008-2009); \*\*Wassim Tabet (2006-2009); Youssef Elfakih (2008); \*\*Russell Buhler (2005-08); \*\*Rory Victor (2006-07); \*\*Amanda Adams (2006-07); Roy Khalife (2006-07); Carlos Guzman (2006); Paul Romero (2005-06); Richard Starks (2005-06); Lauren Parrish (2005); Daniel Bolgren (2005)*  
\*\* = Current or Past OU Graduate Student

#### **e. Collaborators & Other Affiliations**

*Collaborators and Co-Editors (previous 48 months) (5 total)*

Megan Elwood-Madden (OU); A.J. Lutenegeger (U Massachusetts); Andrew Madden (OU); G.A. Miller (OU); K.K. Muraleetharan (OU).

*Graduate and Postdoctoral Advisors (1 total)*

Ph.D. Advisor: A.J. Lutenegeger (University of Massachusetts)

*Thesis Advisor and Postgraduate-Scholar Sponsor (\*\*women)*

*Current Graduate Students: Ph.D.: Wassim Tabet;*

*Past Postdoctoral Scholars: Dr. Botao Lin (2013);*

*Past Graduate Students: \*\*\*Diana Vargas (2007) -Terracon, OKC, OK; \*\*\*Jumanah Hajjat (2007) – Ministry of Education, Jordan; Rory Victor (2008) – Exxon-Mobil, Houston, TX; \*\*\*Amanda Adams (2008) – Johnson and Associates, OKC, OK; Russell Buhler (2009) – Exxon-Mobil, Houston, TX; Nick Hussey (2010) – Terracon, Chicago, IL; \*\*\*Michaela Campbell (2010) – Engineering Analytics, Fort Collins, CO; Eric Holderby (2010) – Halliburton, Dallas, TX; Wassim Tabet (2011) – OU PhD Program; Colin Osborne (2012) – ODOT, OKC, OK; Botao Lin (2012) – China University of Petroleum, Beijing; Eric Agossou (2014) – EST, Norman, OK; Samuel Fadipe (2014) – OGS, Norman, OK;*

*Number of Graduate Students Advised = 13 total; 4 women/1 minority, 9 men/2 minorities*

*Number of Postdoctoral Scholars Sponsored = 1 total*