

Amber D. Anderson

Agronomy Hall, 716 Farmhouse Lane, Ames IA 50011

Education:

<i>Iowa State University</i>	<i>Ames, Iowa</i>
Ph.D. in Soil Science, May 2023 <i>Pedology as a scientific, teachable, artistic discipline in the 21st century</i> Adviser: Dr. Lee Burras	
<i>Iowa State University</i>	<i>Ames, Iowa</i>
Master of Science, Sustainable Agriculture, August 2008 Advisers: Dr. Andrew Manu and Dr. Cornelia Flora	
<i>Iowa State University</i>	<i>Ames, Iowa</i>
Bachelor of Science, May 2006 Agronomy/Plant Health & Protection	

Experience:

<i>Iowa State University</i>	<i>2014-Present</i>
Associate Teaching Professor, Department of Agronomy	<i>2023-Present</i>
Affiliated faculty, Global Resource Systems	<i>2022-Present</i>
Assistant Teaching Professor, Department of Agronomy	<i>2019-2023</i>
Lecturer, Department of Agronomy	<i>2014-2019</i>
<ul style="list-style-type: none">• Instruct approximately 20 credits/1,000 student credit hours per year, covering primarily soils and world food issues• Coach the ISU collegiate soils team and organize FFA state soil contest• Advise 20-30 undergraduates, including honors and soil science certificate students• Supervise 4-6 teaching assistants per semester• Lead or co-lead study abroad courses in Costa Rica	
<i>Iowa Lakeside Laboratory, University of Iowa</i>	<i>2019-Present</i>
Adjunct Professor	
<ul style="list-style-type: none">• Instruct intensive soils field courses at Lakeside Laboratory	
<i>Iowa Organic Association</i>	<i>2012-2014</i>
Executive Director	
<ul style="list-style-type: none">• Communicated with farmers, processors, and consumers through assorted mediums• Directed outreach at events, including the Iowa State Fair• Wrote and managed grants	
<i>Conservation District of Middlesex County, Massachusetts</i>	<i>2011</i>
Local Working Group Coordinator	
<ul style="list-style-type: none">• Proposed and implemented a new web presence strategy• Organized, publicized, and facilitated district priority planning meetings• Developed the activity and funding priorities plan for 2012	
<i>Iowa Farmers Union:</i>	<i>2008-2010</i>
Outreach and Membership Director, Office Manager	
<ul style="list-style-type: none">• Provided technical information to farmer and consumer members as needed• Managed organizational budget, grants, website, and membership database• Organized 2009 and 2010 annual IFU conferences and the SAEA 2009 National Conference	
<i>Iowa Valley Community College:</i>	<i>2009-2010</i>
Adjunct Professor	

- Marshalltown Community College, Introductory soils class Fall 2009 and 2010
- Ellsworth Community College, Introductory Soils class Fall 2010

Iowa State University: **2002-2008**

Agronomy Department, Dr. Andrew Manu

Graduate Teaching Assistant 2006-2008

- Instructed laboratories for Agronomy 154: Introduction to Soils
- Tutored students in the soils learning center
- Helped develop class materials

Undergraduate Teaching Assistant 2004-2006

- Instructed laboratories for Agronomy 154: Introduction to Soils
- Tutored students in the soils learning center

North Central Region Center for Rural Development

Rural Sociology Department, Dr. Cornelia Flora

Research Assistant 2006-2008

- Prepared, categorized, and assisted with data for various projects
- Assisted in farmer evaluation of a new conservation security program qualifying tool by organizing and facilitating listening sessions

ISU Plant Pathology Clinic

Laboratory Assistant 2002-2004

- Performed laboratory diagnostics
- Communicated with clients through personal correspondence and general publications
- Instructed the plant pathology portion of ISU Master Gardener Program

Publications:

Turk, J., Young, R., Jelinski, N., Anderson, A., Clark, K., Deere, A., Moorberg, C., Osterloh, K., and Presley, D. (2023) Jumble judging: Cognitive and affective outcomes of intercollegiate collaboration at a soil judging competition. *Natural Sciences Education*. <https://doi.org/10.1002/nse2.20104>

Anderson, Amber (2023). Introduction to Soil Science. Iowa State University Digital Press. <https://iastate.pressbooks.pub/introsoilscience/>, <https://doi.org/10.31274/isudp.2022.123>

Anderson, Amber, C. Lee Burras, Nic Jelinski, Rebecca Young, Judith Turk, Kerry Clark, Deann Presley, Colby Moorberg, Kris Osterloh, and Ashlee Deere. (2022). Region V Soil Judging Handbook 2022. <https://dr.lib.iastate.edu/handle/20.500.12876/dv6l4BOz>

Turk, J. K., Young, R. A., Jelinski, N. A., Anderson, A. D., Dere, A., Moorberg, C. J., & Owen, R. K. (2022). Soils of the Central Nebraska Loess Hills and Central Loess Plains. *Great Plains Research*, 32(2), 95-133. <https://muse.jhu.edu/article/885757>

Anderson, Amber, Marshall McDaniel, and Lee Burras. (2021). *Soils: Iowa's Nature Series*. Ames, Iowa. Iowa State University Extension. <https://store.extension.iastate.edu/product/Soils-Iowas-Nature-Series>

Anderson, Amber, C. Lee Burras, Richard Pope, and Gerald Miller. (2021) *Soil Judging in Iowa*. Ames, IA. Iowa State University Extension. <https://store.extension.iastate.edu/product/Soil-Judging-in-Iowa>

Anderson, Amber and C. Lee Burras. "The science, beauty, and future of Iowa's Soils" *Compelling Ground: Landscapes, Environments, and Peoples of Iowa*. Edited by Sheila Mauck and Adrienne Gennett, University Museums, Ames Iowa, 2021, Page 47-53. <https://www.museums.iastate.edu/about/news/press-releases/press-release-compelling-ground/>

Owen, R. K., Anderson, A., Bhandari, A., Clark, K., Davis, M., Dere, A., & Young, R. (2021) Evaluating student attitudes and learning at remote collegiate soil judging events. *Natural Sciences Education*, e20065. <https://access.onlinelibrary.wiley.com/doi/10.1002/nse2.20065>

Invited Presentations:

- *Experiential learning* for Hort 698 Spring 2023, Spring 2024
 - *Soil features* for Iowa Onsite Wastewater Association annual conference, Spring 2024
 - *Soils in the home landscape* for Horticulture Extension specialists, Summer 2023
 - *Basics of soil features and identification* for Septic installers, installers, and public health professionals through DMACC continuing ed credits, Summer 2023
 - Contributions to *Telling Tales: Exploring Narrative Art in the Permanent Collection*, Brunnier Gallery, University Museums, January 17-July 23, 2023
 - *How soil changes impact the landscape: Drought in NW Iowa* for ISU Extension field day at the Northwest Iowa Research Farm, Summer 2023
 - *Agronomy is awesome: soil basics* for 4-H state conference, Summer 2023
 - *Pedology and Land Use of the Galva Catena and Northwest Iowa* for NLAE, Summer 2023
 - *Comparing Iowa and California agriculture and soils* for FS HN 496B, Spring 2023
 - *Soils of Costa Rica* for Tropical Agriculture, Hort 511, Spring 2023
 - *Soil Basics on the farm* for Mustard Seed Community Farm, 2016-18, 2019-23
 - *Soils and how they impact your future career* for WISE-go further 2022
 - *Sustainable and Regenerative Agriculture* for OLLI, 2022
 - *Soils of Northwest Iowa* for Region V Soil Judging Contest, 2-year students, 2022
 - *Soils of Northwest Iowa* for Region V Soil Judging Contest, 4-year students, 2022
 - *Soil properties* Ag Discovery ISU, 2022
 - *Soils of Iowa* for Costa Rica visiting students, 2018, 2022
 - *Soils for your classroom* for Water Rocks! Teaching conference 2022
 - *Soils Judging Workshop* Iowa Ag Teachers Summer Agricultural Education Conference, 2021
 - *Describing and classifying soils*, Agron 463 and 563, Dr. Lee Burras, 2016, 2017, 2018, 2019
 - *Introduction to soil science* for NREM 120, Drs. Rentz and Schieltz, 2018
 - *Basics of soil* for Geology 101, Dr. Beth Caissie, 2017
 - *Soils of Central Iowa* for Region V Soil Judging Contest, 2016
 - *Soils in your garden* Story County Master Gardeners, 2015
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Teaching and Grant Development Activities:

- Jumpstart Open Source Development grant recipient, 2023-2025
 - Miller OER mini-grant recipient, 2023-2024
 - Quality matters certification, in review 2023-2024
 - Open source textbook development for Introductory Soils course, 2022-2023
 - Project LE/ARN 2022
 - Course development with Agron department instructional designers, 2019-present
 - CELT four-day Course Design Institute, 2019
 - Participation in CELT seminars, 2015-present
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Teaching Experience:

Iowa State University

- Introduction to Soil Science: (Agron 154/182)

- Most semesters, 2015-Present
- International Tour: Costa Rica (Agron 496A)
 - Spring semesters 2019, 2020 (travel canceled due to covid), 2022-2024
- Issues in Sustainable Agriculture (Agron 450)
 - Spring 2024
- Field exploration of Agronomy (Agron 279)
 - Fall semesters, 2017-2023
- Field experience in soil description and interpretation (Agron 370)
 - Fall and spring semesters, 2015-Present
- World food issues (Agron 342)
 - Fall and spring semesters, 2016-2023
- Professional development in Agronomy: Career planning (Agron 210)
 - Fall semesters 2014-2016
- Soils & environmental quality (Agron 260)
 - Spring semesters 2015-2017
- Soils & plant growth laboratory (Agron 354L)
 - Fall 2014, Spring 2015, Fall 2015, Spring 2016

Iowa Valley Community College

- Introductory Soils-Marshalltown Campus
 - Fall 2009 and 2010
- Introductory Soils-Ellsworth Campus
 - Fall 2010

Honors and Awards:

- 2022: CALS Outstanding Achievement in Teaching by Term Faculty Award
- 2008: ISU Graduate College Teaching Excellence Award
- 2007: Assistant coach, National champion soil judging team

Mentorship:

- Supervision of masters students: Casey Campbell-Fix, Erin Stichter
- Graduate student committees: Francis Akitwine (PhD candidate), Ally Larson (MS student)
- Blake Lineweaver Honors Project-*Cultivating Community: Community-Supported Agriculture in Central Iowa*, 2019
- Coach, National Individual Soil Judging Champion, 2018
- Undergraduate and graduate teaching assistants

Service Activities:

- Soil Science Society of America (SSSA/ASA), 2024 National Soil Judging Contest organizer
- International Union of Soil Scientists, International Judging Contest Working Group member
- FFA High School State Soil Judging Contest organization, yearly, 2014-2019, 2021-Present
 - Coordination and judging of four soil pits per semester
 - Development of additional teaching materials for high school audiences
- Agronomy Departmental curriculum committee member: Jan 2021-Present
 - Agronomy representative to CALS curriculum committee, F23
- Agronomy Department Teaching Fellowship coordinator: May 2023-Present