LINDSAY CHANEY, PHD

CURRICULUM VITAE

PROFESSIONAL APPOINTMENTS

2020-*Present*	**Associate Professor**; Department of Biology, Snow College, Ephraim, UT
2021-2023	**Interim Assistant Provost**; Snow College, Ephraim, UT
2016-2020	**Assistant Professor**; Department of Biology, Snow College, Ephraim, UT
2014-2016	**Post-Doctoral Fellow**; USDA Forest Service Rocky Mountain Research Station Shrub Sciences Laboratory, Provo, UT Advisor: Dr. Bryce A. Richardson
2014-2016	**Post-Doctoral Fellow**; Brigham Young University, Provo, UT Advisor: Dr. Joshua A. Udall

EDUCATION

2010-2014	**Ph.D. Biology**; University of Cincinnati, Cincinnati, OH Dissertation topic: Understanding the Evolutionary Potential of Weeds Advisor: Dr. Regina S. Baucom
2009-2010	**B.S. Biology**, Mathematics minor, cum laude; West Virginia University, Morgantown, WV
2005-2006	Utah State University, Logan, UT (transferred without degree)
2003-2005	**A.S.**, cum laude; Snow College, Ephraim, UT

ADDITIONAL CREDENTIALS

Online Excellence: Designing and Teaching an Online Course

TEACHING EXPERIENCE AT SNOW COLLEGE

*Key for Modalities: **I** – In person; **H** – honors; **O** – online; **C** – competency based; **A** – accelerated*

General Biology (BIOL 1010) – **I, O, OC, OA**
General Biology Laboratory (BIOL 1015) - **I, O, OC**
Environmental Biology (BIOL 1420) – **I, IH, O**
Environmental Biology Laboratory (BIOL 1425) – **I, O**
Biology II – Plant Diversity (BIOL 1620) – **I**
Biology II Laboratory – Plant Diversity (BIOL 1625) – **I**
Biology Undergraduate Research (BIOL 2915, BIOL 2925) – **I**
Cooperative Education – Co-op (BIOL 1997) – **I**
Genetics (BIOL 2030) – **I**
Genetics Laboratory (BIOL 2035) – **I**
Foundations: Constructing My Story (GNST 1200; HONRS 2850) – **I, IH**
Foundations: Earth: The Landscape Around Us (GNST 1200) – **I**
Foundations: Coding My Story (GNST 1200) – **I, IH, O**
Foundations: Leadership Dynamics (GNST 1200) – **O**
Student Success (GNST 1010) – **I**

PRIOR TEACHING EXPERIENCE

2015-2016	**Adjunct Instructor** at Utah Valley University; Orem, UT College Biology I Laboratory (BIOL 1615)
2014	**Dual-Enrollment Coordinator** at University of Cincinnati; Cincinnati, OH Introduction to Environmental Studies I (EVST 1011)
2013	**Co-Instructor** at University of Cincinnati; Cincinnati, OH Introduction to Environmental Studies I (EVST 1011)
2013	**Head Teaching Assistant** at University of Cincinnati; Cincinnati, OH Evolution, Ecology, and Genetics (BIOL 2082C)
2010-2012	**Teaching Assistant** at University of Cincinnati; Cincinnati, OH Genetics and Cell (BIOL 2081C) Biology Lab (BIOL 112) Ecology (BIOL 303) Genetics (BIOL 302)
2010	**Teaching Assistant** at West Virginia University; Morgantown, WV Plant Systematics (BIOL 450)

INTERNATIONAL & STUDY ABROAD TEACHING

2026 **Ecuador — Environmental Biology Honors**

Co-led an interdisciplinary honors study-abroad experience integrating Environmental Biology and Literature of the Outdoors. Led student field research using aquatic environmental DNA (eDNA) to investigate and compare biodiversity in Ecuador and Utah.

PROFESSIONAL DEVELOPMENT – SABBATICAL

2024-2025 Faculty Sabbatical, Snow College

Focus: Engaged Learning and Undergraduate Biology Education

- Advanced biology education research on collaborative learning, including quantitative and qualitative analysis of student achievement and perceptions.
- Developed course-based undergraduate research experiences (CUREs), including a Genetics laboratory project using CRISPR gene editing in painted lady butterflies.
- Developed external-funding expertise through NSF proposal-writing training, the Council on Undergraduate Research Proposal Writing Institute, service as an NSF ITYC proposal reviewer, and consultation with NSF program officers.
- Expanded global perspectives for biology teaching through international study and exploration, incorporating examples in evolution, ecology, genetics, biodiversity, and conservation into undergraduate courses

PROFESSIONAL DEVELOPMENT – SELECTED INTENSIVE PROGRAM

2021 USHE Women's Leadership Exchange (UWLE)

Mentors: University of Utah's Senior Vice President for Academic Affairs Dr. Dan Reed and Dr. Martell Teasley

Project: *Building a Microcredential Program at Snow College*

PROFESSIONAL DEVELOPMENT – PUBLICATIONS

Publications in Peer-Reviewed Journals while at Snow College: (* undergraduate student)

2020 L. Chaney & R.S. Baucom. "The soil microbial community alters patterns of selection on flowering time and fitness related traits in *Ipomoea purpurea*." American Journal of Botany, 107(2), 186-194. https://doi.org/10.1002/ajb2.1426; Data: https://doi.org/10.5061/dryad.p8350q3; Code: https://github.com/lchaney/MG_Microbe. Cover Photo.

2019 P.J. Maughan, L. Chaney, D.J. Lightfoot, B.J. Cox, M. Tester, E.N. Jellen, & D.E. Jarvis. "Mitochondrial and chloroplast genomes provide insights into the evolutionary origins of quinoa (*Chenopodium quinoa* Willd.)." Nature Scientific Reports, 9, 185. https://doi.org/10.1038/s41598-018-36693-6

2018 B.A. Richardson & L. Chaney. "Climate-based seed transfer of a widespread shrub: population shifts, restoration strategies and the trailing edge." Ecological Applications, 28(8), 2165-2174. https://doi.org/10.1002/eap.1804; Data: https://doi.org/10.5061/dryad.q477f90; Code: http://doi.org/10.5281/zenodo.1409268

2018 M.T. Stevens, C.D. Roush*, & L. Chaney. "Summer drought reduces the growth of invasive tree-of-heaven (*Ailanthus altissima*) seedlings." Natural Areas Journal, 38(4), 230-236. https://doi.org/10.3375/043.038.0403

2017 B. Richardson, L. Chaney, N.L. Shaw & S.M. Still. "Will phenotypic plasticity affecting flowering phenology keep pace with climate change?" Global Change Biology, 23(6), 2499-2508. https://doi.org/10.1111/gcb.13532

2017 L. Chaney, B.A. Richardson & M.J. Germino. "Climate drives adaptive genetic responses associated with survival in big sagebrush (*Artemisia tridentata*)." Evolutionary Applications, 10 (4), 313-322. https://doi.org/10.1111/eva.12440. Cover photo

2016 L. Chaney, R. Mangelson*, T. Ramaraj, E.N. Jellen, & P.J. Maughan. "The Complete Chloroplast Genome Sequences for Four *Amaranthus* Species (Amaranthaceae)". Applications in Plant Sciences, 4(9). https://doi.org/10.3732/apps.1600063

2016 L. Chaney, A.R. Sharp & J.A. Udall. "Next-generation mapping for structural variation detection in comparative plant genomics." Trends in Plant Science, 21(9), 770-780. https://doi.org/10.1016/j.tplants.2016.05.004

Publications in Peer-Reviewed Journals prior to Snow College:

2014 L. Chaney, & R.S. Baucom. The costs and benefits of tolerance to competition in *Ipomoea purpurea*, the common morning glory. Evolution, 68: 1698–1709. https://doi.org/10.1111/evo.12383

2012 L. Chaney, & R.S. Baucom. The evolutionary potential of Baker's weediness traits in the common morning glory, *Ipomoea purpurea* (Convolvulaceae). American Journal of Botany, (99)9, 1524-153. https://doi.org/10.3732/ajb.1200096

Published abstract prior to Snow College:

2014 R.S. Baucom & L. Chaney. "The prevalence of fitness costs of tolerance across organisms." Symposium for The Society for Integrative and Comparative Biology. Austin, TX.

PROFESSIONAL DEVELOPMENT – PRESENTATIONS AT ACADEMIC CONFERENCES

Oral Presentations while at Snow College:

2023 L. Chaney, K. Parry, & M. Jenkins. "Incorporating CBE into Traditional, Degree-Granting Practices." Competency Based Education Network Exchange; Amelia Island, FL

L. Chaney, D. Allred, & A. Teichert. "Coding My Story: Interdisciplinary GE as Part of FYE." Annual Conference on The First-Year Experience; Los Angeles, CA

2022 L. Chaney, K. Parry, & M. Jenkins. "GE CBE: General Education Development for Competency-Based Education." Competency Based Education Network Exchange; Amelia Island, FL

2019 L. Chaney & B. A. Richardson. "Creating Empirical Seed-transfer Zones for Big Sagebrush (*Artemisia tridentata*)." Utah Crop Improvement Association Wildland Seed Collector Meeting. Ephraim, UT.

2017 L. Chaney, B.A. Richardson & M.J. Germino. "Climate drives adaptive genetic responses associated with survival in big sagebrush." Society for the Study of Evolution Annual Conference; Portland, OR. https://youtu.be/Uy3d4Spgfwo

Oral Presentations prior to Snow College:

2016 L. Chaney, B. Richardson, & M. Germino. "Climate drives adaptive genetics in big sagebrush (*Artemisia tridentata*)." Society of Ecological Restoration and Great Basin Native Plant Project. Boise, ID. (Invited)

2015 L. Chaney, D.M. Jaeger, & B.A. Richardson. "Survival and seed size in big sagebrush restoration." 2015. Utah Section Society for Range Management. Moab, UT. (Invited)

2015 B. Richardson, L. Chaney, N. Shaw, & M. Germino. "Growth, seed yield and survivorship clines of big sagebrush (*Artemisia tridentata*): relationships to climate and development of seed transfer zones." Society of Ecological Restoration. Manchester, UK.

2015 B. Richardson, L. Chaney, N. Shaw, & M. Germino. "Clines in growth, seed yield and survivorship among subspecies big sagebrush: relationships to climate and development of seed transfer zones." Great Basin Consortium Native Plant Program. Boise State University; Boise, ID.

2014 L. Chaney & R.S. Baucom. "Plants that persist: Are highly tolerant plants also the most fit?" Society of the Study of Evolution. Raleigh, NC.

2014 L. Chaney & R.S. Baucom. "Baker's General Purpose Genotype: Are highly tolerant weeds also the most fit?" Midwest Ecology and Evolution Conference. Dayton, OH. (Invited)

2013 L. Chaney & R.S. Baucom. "The evolution of tolerance to competition in the common morning glory, *Ipomoea purpurea*." Society of the Study of Evolution. Snowbird, UT.

Internal Oral Presentations while at Snow College:

See section: "Service to Snow College"

Internal Oral Presentation prior to Snow College:

2015 L. Chaney. "What's the story morning glory? Understanding the evolutionary potential in an agricultural weed." Brigham Young University Plant and Wildlife Sciences department seminar. Provo, UT.

2014 L. Chaney. "The evolution of weeds: tolerance to competition." University of Cincinnati Department of Biological Sciences Seminar Series and Awards Ceremony. Cincinnati, OH.

2013 L. Chaney. "The evolution of tolerance across nature: what is tolerance and why is it interesting?" University of Cincinnati Department of Biological Sciences Bioblitz Retreat. Fernbank Park, Cincinnati, OH.

Guest Lecturer prior to Snow College:

2014 L. Chaney. "Creating a Genome Physical Map." Genomics (PWS 468), BYU.

Table-talk Presentations while at Snow College: (* undergraduate student, presenting author)

2019 L. Chaney. "Impact of Group Exams in Non-majors Biology: a Mixed Methods Analysis." Society for the Advancement of Biology Education Research Conference; Minneapolis, MN

2017 M. Cox*, E. Hinds*, & L. Chaney. "Constructing My Story – an Interdisciplinary Course with Genetics, Folklore, and Woodworking." Folklore Society of Utah Meeting. Ephraim. UT

Poster Presentations while at Snow College: (* undergraduate student, presenting author)

2020 A. Ukena*, M. Miles*, & L. Chaney. "CRISPR in the Classroom." American Society of Microbiologist Intermountain Branch Meeting. Ogden, UT.

2020 L. Chaney, D. Allred, & M. Jenkins. "Integrative Learning: The Foundation of General Education." Association of American Colleges and Universities Conference on General Education, Pedagogy, and Assessment. Jacksonville, FL.

2017 L. Chaney. "Effectiveness of different assessment strategies in non-majors introductory biology." National Association of Biology Teachers Annual Conference; St. Louis, MO

2017 *C. D. Roush, L. Chaney, & M. T. Stevens. "Summer drought reduces the growth of invasive tree-of-heaven seedlings." Utah Conference on Undergraduate Research. Orem, UT.

Poster Presentations prior to Snow College: (* undergraduate student, presenting author)

2016 L. Chaney & B. Richardson. "Climate at the local and landscape level drive adaptive genetic responses associated with survival in big sagebrush (*Artemisia tridentata*)." Sagebrush Ecosystem Conference. Salt Lake City, UT.

2016 L. Chaney, B. Richardson, & M. Germino, "Climate at the local & landscape level drive adaptive genetic responses associated with survival in big sagebrush (*Artemisia tridentata*)." Great Basin Native Plant Project. Boise, ID

2016 L. Chaney, B. Richardson, & J. Udall. "Genome map of quacking aspen (*Populus tremuloides*)." Plant and Animal Genome Conference XXIV. San Diego, CA.

2015 B. Richardson, L. Chaney, N. Shaw, & M. Germino. "Clines in growth, seed yield and survivorship among subspecies big sagebrush: relationships to climate and development of seed transfer zones." Great Basin Consortium Native Plant Program. Boise State University; Boise, ID.

2014 L. Chaney & R.S. Baucom. "The costs and benefits of tolerance: a look across multiple systems and stressors." Invasion Genetics: The Baker and Stebbins Legacy Symposium. Asilomar, CA.

2014 *L. Gilfillan & L. Chaney. "Artificial herbivory and its effects on high and low fitness groups of *Ipomoea purpurea*." University of Cincinnati Undergraduate Research Conference. Cincinnati, OH.

2013 L. Chaney & R.S. Baucom. "Tolerance and plasticity in an agricultural weed, the common morning glory." University of Cincinnati Graduate Poster Forum. Cincinnati, OH.

2013 *Z. Ahmed, L. Chaney, & R.S. Baucom. "Photosynthetic capability of *Ipomoea purpurea* under salt and drought stress." University of Cincinnati Undergraduate Research Conference. Cincinnati, OH.

2013 *T. Schaible, L. Chaney, & R.S. Baucom. "The effect of salinity on the relative growth rate of *Ipomoea purpurea*." University of Cincinnati Undergraduate Research Conference. Cincinnati, OH.

2012 L. Chaney & R.S. Baucom. "The evolutionary potential of weediness traits in the common morning glory, *Ipomoea purpurea*." Midwest Ecology of Evolution Conference. Cincinnati, OH.

2012 L. Chaney & R.S. Baucom. "The evolutionary potential of weediness traits in the common morning glory, *Ipomoea purpurea*." University of Cincinnati Graduate Poster Forum. Cincinnati, OH.

2010 *L. Chaney, et al. "The interactive effects of carbon dioxide and temperature on the competitive interaction between invasive Japanese stiltgrass (*Microstegium vimineum* (Trin.)) and native

American ginseng (*Panax quinquefolius* L.)." West Virginia University Senior Capstone Poster Symposium. Morgantown, WV.

PROFESSIONAL DEVELOPMENT – WORKSHOPS, CONFERENCES, & COURSES ATTENDED

2026 CRISPR in the Classroom: Celebrating Innovation in Undergraduate Education; Winter Park, FL

2024 Discover Biochemistry and Molecular Biology; San Antonio, TX
Grant Training Center NSF Proposal Writing Course; Online
Council on Undergraduate Research Proposal Writing Institute; River Falls, WI

2023 CC Bio INSITES: Envisioning the Future of CC BER; Washington, DC
CC Bio INSITES = Community College Biology Instructor Network to Support Inquiry into Teaching and Education Scholarship
Innovations Academy – Teaching with Inclusion and Relevance; Snow College
Annual Conference on The First-Year Experience; Los Angeles, CA
Leapfrog User Conference; Tuscan, AZ
AAC&U Conference on Diversity, Equity, and Student Success; Henderson, NV

2022 Competency Based Education Network Exchange; Amelia Island, FL
What is an Educated Persons Conference; Midway, UT
Innovations Academy – Foundations Revisions; Snow College
Utah's State Summit on Credit for Prior Learning; Orem, UT
Association of American Colleges and Universities (AAC&U) Conference on General Education, Pedagogy, and Assessment; San Diego, CA.
American Conference of Academic Deans (ACAD) Annual Meeting; St. Petersburg, FL

2021 Competency Based Education Network Exchange; Austin, TX
Badgers Belong Upstander Training
DesignPLUS Basics, Module Builder and Templates, and Intermediate Trainings
Society for the Advancement of Biology Education Research (SABER) West Online/Virtual Conference
SABER West Workshop: Honoring the Complexity of Genetics – Exploring how undergraduate learning of multifactorial genetics affects belief in genetic determinism
COVID Vaccination: From Science to Society, Combatting misinformation in science and medicine
Faculty Mentoring Network (FMN)

2020 Association of American Colleges and Universities (AAC&U) Conference on General Education, Pedagogy, and Assessment; Jacksonville, FL.

2019 National Science Teacher Association (NSTA) Area Conference; Salt Lake City, UT.
Failure as a part of Learning: A Mindset Education network (FLAMEnet) Workshop; Atlanta, GA
Strengthening CC Bio INSITES: Mentoring for BER Success; Washington, DC
CC Bio INSITES = Community College Biology Instructor Network to Support Inquiry into Teaching and Education Scholarship
Society for the Advancement of Biology Education Research Conference; Minneapolis, MN
CRISPR in the Classroom: workshop for undergraduate educators to implement CRISPR; Minneapolis, MN

2018 American Society of Microbiology's Improving Undergraduate Biology Education Based on Research in Science Learning Online Course
National Association of Biology Teachers Annual Conference; San Diego, CA
Summer Institutes of Scientific Teaching Online Webinars:
Course Reform Focusing on Non-Science Majors General Education Experiences;
Implementing Active Learning in Online Courses
How People Learn

Folklore Society of Utah Meeting; Ephraim, UT
Birds of Sanpete – Snow College Community Education; Ephraim, UT
CC Bio INSITES: Launch Meeting; Washington, DC

2017 National Association of Biology Teachers Annual Conference; St. Louis, MO
Utah Society for Environmental Education Annual Conference; Logan Utah
Society for the Study of Evolution Annual Conference; Portland, OR
Society for the Study of Evolution – Education Meeting; Portland, OR

2016 National Association of Biology Teachers Annual Conference; Denver, CO

Prior to Snow College:

2015 Metagenomics Analysis at the Summer Institute in Statistics & Modeling in Infectious Diseases; Seattle, WA.

2015 Publish and Flourish. Brigham Young University; Provo, UT.

2014 Experiencing Evolution: A Professional Development Workshop for Undergraduate Educators. Society for the Study of Evolution; Raleigh, NC.

2013 Avoiding Extinction in the Classroom. Society for the Study of Evolution; Snowbird, UT.

2013 Professional Development in Academic Biology. University of Cincinnati; Cincinnati, OH.

2012 Quantitative Genetics and Mixed Models in Quantitative Genetics at Summer Institute in Statistical Genetics; Seattle, WA.

2010 Evidence Based Teaching. University of Cincinnati; Cincinnati, OH.

PROFESSIONAL DEVELOPMENT – MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

-Utah Cut Flower Farm Association (UCFFA) – Associate Member
-Society for the Advancement of Biology Education Research (SABER)
-National Association of Biology Teachers (NABT)
-National Science Teacher Association (NSTA)
-Utah Science Teacher Association (UtSTA)
-Botanical Society of America (BSA)
-Society for the Study of Evolution (SSE)
-American Society of Microbiologists (ASM)
-Natural Areas Association (NAA)
-Utah Society for Environmental Education (USEE)
-Textbook and Academic Authors Association (TAAA)
-Association for Women in Science (AWIS)

PROFESSIONAL DEVELOPMENT – AWARDS AND GRANTS RECEIVED

External Awards while at Snow College:

2025 Travel and full registration award for CRISPR in the Classroom Workshop

2018-2023 CC Bio INSITES (Community College Biology Instructor Network to Support Inquiry into Teaching and Education Scholarship)

2021 USHE Innovations Grant for CBE

2021 SABER West Workshop registration

2020 Conference registration and student conference registration for NABT

2019 Travel and full registration award for CRISPR in the Classroom Workshop

2019 Partial travel and full registration award for Failure as a part of Learning: A Mindset Education Network (FLAMEnet) Workshop

2017 Publication grant from Text and Academic Authors ($1,000)

Internal Awards while at Snow College:

2023	Undergraduate Quality Initiative: Audible Books and DC stay
2022	Competency Based Education course development
2020	Accelerated online learning course development
2019	Undergraduate Quality Initiative: NSTA conference registration and travel
	Snow College Student Travel Award – Foundation course Capital Reef Field Trip
	Foundation course development
2018	Travel for National Association of Biology Teachers Conference; San Diego, CA
	Foundation course development
	Undergraduate Quality Initiative: ASM Improving Undergraduate Biology Education
2017	Travel for National Association of Biology Teachers Conference; St. Louis, MO
	Undergraduate Quality Initiative: Ancestry DNA test and DC stay
	Online course development funds
	Open Educational Resources development funds
2016	Undergraduate Quality Initiative: Publications charges
	Travel for National Association of Biology Teachers Conference; Denver, CO

External Awards prior to Snow College:

2015	U.S. Presidential Management Fellows Semi-Finalist (fellowship program through US federal government agencies)
	Summer Institute in Statistics Modeling Infectious Diseases Tuition Scholarship
	Summer Institute in Statistics Modeling Infectious Diseases Travel Scholarship
2014	University of Cincinnati Department of Biology J. Robie Vestal Award for Outstanding Doctorate Student
2013, 2014	University of Cincinnati Graduate Student Governance Association Presenter Travel Award
2013	University of Cincinnati department of Biological Sciences Weiman / Benedict Research Awards. Examination of the 'general purpose genotype' in an agricultural weed, *Ipomoea purpurea.* $800 funded June 2013 to June 2014.
2013	Society for the Study of Evolution Travel Award
2012	University of Cincinnati department of Biological Sciences Benedict Research Awards. Assessing the evolutionary potential of weeds: a look at Baker's traits in the common morning glory, *Ipomoea purpurea*. $800 funded June 2012 to June 2013.
2012	Summer Institute in Statistical Genetics Tuition Scholarship
	Summer Institute in Statistical Genetics Travel Scholarship
2011	University of Cincinnati Department of Biology J. Robie Vestal Award for Outstanding Master Student
	University of Cincinnati department of Biological Sciences Wendal Botany Grant. Natural Selection on Weediness in *Ipomoea purpurea*: Response To Competition. $1,976.94 funded June 2011 to May 2012.
	University of Cincinnati department of Biological Sciences Benedict Research Awards. Natural Selection on Weediness in Ipomoea purpurea: Response To Competition. $1,200 funded June 2011 to May 2012.
2010-2014	University of Cincinnati University Graduate Scholarship (UGS)
2010-2012	University of Cincinnati Chose Ohio First Scholarship
2009-2010	West Virginia University President's List and Dean's List
2005-2006	Utah State University Aggie Scholar Scholarship

2003-2005 Snow College Dean's List
2003-2005 Snow College Academic Excellence Scholarship
2003-2005 Snow College Athletic Volleyball Scholarship

External Awards Applied and Not Funded while at Snow College:

2024 NSF LSAMP ADG: "Science, Technology, Engineering, and Mathematics for Utah (STEM4U).") Institutional Director: L. Chaney; Co-PI: Annie Isabel Fukushima.

2023 NSF LSAMP-SPIO grant. "Louis Stokes New STEM Pathways Implementation-Only Alliance: Utah STEM for Minority Explorations - STEM ME." ($3,495,313) Institutional Director: L. Chaney; Co-PI: Annie Isabel Fukushima.

2020 NSF Scholarships in Science, Technology, Engineering, and Mathematics Program (S-STEM). ($650,000). "Sense of belonging in STEM students when returning back to school after a leave of absence." PI: L. Chaney, Co-PI's: S. Ferguson, & R. Taylor.

External Awards Applied and Not Funded prior to Snow College:

2016 Using big sagebrush to improve big sagebrush restoration. 2016 David H. Smith Conservation Research Fellowship. $145,000; July 2016 to June 2018.

2015 Comparative genomics of two *Populus* trees by creating whole genome physical maps. American Association of University Women Fellowship for Postdoctoral Research. $30,000; July 2015–June 2016.

2014 Examination of the general purpose genotype in an agricultural weed, *Ipomoea purpurea*. Sigma Xi Student Grants-In-Aid of Research University of Cincinnati Chapter. $3,000; 2014.

2013 Environmental studies dual enrollment outreach grant. University of Cincinnati dual enrollment partnership grant. $1,000; 2013. [Not funded due changes in university administration and accompanying priorities]

Examination of the general purpose genotype in an agricultural weed, *Ipomoea purpurea*. University of Cincinnati University Research Council. $3,000; 2013.

The evolutionary potential of an agricultural weed, *Ipomoea purpurea*. University of Cincinnati Graduate Summer Undergraduate Mentoring Program. $3,000; 2013.

2011 Natural selection on weediness in *Ipomoea purpurea*: response to competition. University of Cincinnati University Research Council. $3,000; 2011.

Weediness in morning glory and its response to competition with corn. University of Cincinnati Graduate Summer Undergraduate Mentoring Program. $3,000; 2011.

SERVICE TO SNOW COLLEGE:

Service as Interim Assistant Provost:

- Serve as the Academic Affairs non-voting member of Curriculum Committee and the General Education Committee, and oversee the Academic Standards Committee
  - -Provide a bridge for administrative and faculty perspectives
  - -Work with chair to train committee members
  - -Maintain consistency from committee to committee
  - -Provide knowledge of policy and procedure
  - -Contribute a depth of knowledge on what has been discussed previously
  - -Provide an unbiased opinion when needed
  - -Assist committee chairs in leading and carrying committee duties
- Micro-credentialing and Digital Badging Committee Co-Chair (2021 – 2023)
  - -Lead the college to develop a Microcredentialing program.

-Multiple campus workshops and webinars
-Currently offering 54 different microcredentials
-Have issued to 112 awardees in first year

- Develop K-16 discipline specific workshops
  - -Collaborate with Heidi Stringham and Becky Callister
  - -Put on discipline specific workshops, each held in Richfield & Ephraim
    - *Math and Science
    - *English and Language Arts
    - *Social Science and Fine Arts
  - -Organized and trained faculty presenters
  - -Created and set the agenda
  - -Surveyed Snow students and led discussion on students experiences
  - -Had 51 High School Faculty in attendance
- Oversee Snow Colleges Foundations Program
  - -Work with Faculty Fellows to ensure delivery of a high-quality program
- Innovations Academy 2023: Teaching with Relevance and
  - -Planned the 2023 Innovations Academy and lead the planning committee
  - -Organized and hosted virtual and in-person book club discussions
- Worked closely with the Provost and the Institutional Research Office to prepare for Assessment Day, train faculty, and review reports
- Organized and led Knowledge Area Assessments as part of the standard review cycle
  - -AI, QL, E1, E1, HU, FA, and Foundations x3
- Textbooks
  - -First point of contact for our online textbook provider (Akademos / TBB)
  - -Work with faculty, chairs, and deans to insure accurate and timely adoptions
  - -Coordinate with bookstore, faculty, publishers, registrars office, financial aid office, and budget director to ensure correct delivery and billing of Inclusive Access textbooks
  - -Frequent collaboration with Snow's Campus store on textbook issues
  - -Surveyed faculty to gain input on textbook provider for RFP, served on RFP
  - -Conducted a campus wide student survey on textbook costs
    - *337 total respondents
    - *Information helped inform the "debt-free" working group
- Work with external partners to create 2+2 articulation agreements and improve transfer into and out of Snow with 4-year schools and tech ed schools.
  - -Occasionally attend USHE Transfer Council
- Work with Institutional Research Office to oversee program reviews in accordance to USHE R411 policy
- Oversee and manage Course Leaf (CL) implementation
  - -CL is our new curriculum, catalog, and scheduling management software
- College Guided Pathways / CIP Code project steering committee
- Help run the college Prior Learning Assessment program
  - -Facilitate portfolio evaluation
  - -Write reports and policy
  - -Member of the USHE PLA Professional Development Working Group
  - -Member of the USHE PLA Portfolio Working Group

- Member of the State USHE GE Task Force
  -Work to revise USHE R470 policy
- Lead a faculty team to set parameters for Engaged Learning funds (USAL money $36,600)
- Served on the Utah Conference of Undergraduate Research committee
- Served as the interim director of the Institutional Research Board
- Oversaw administration of course evaluations
- Work closely with Academic Affairs team to plan and present Back to School meetings
- Contributing (but non-voting) member of Deans Counsel
- Help plan and attend Department Chair Meetings
- Help plan and attend New Faculty Meetings
- Utah First Year Experience Consortium Steering Committee
- Competency Based Education Steering Committee (2021 – 2023)
  -Helped led the development and implementation of CBE courses at Snow
- Academic Calendaring Committee
  -Play a key role in soliciting feedback and gathering possible calendars
- Worked closely with the registrar's office to implement course scheduling policies and procedures
- Served on the Search Committee for the VP of Student Affairs & Enrollment Management
- Strategic Enrollment Planning Executive Team & Academic + Mix and Modality Group
- Data Governance Committee (2021 – 2023)

College Committees and Service:

- Online Excellence Committee and Online Mentor (May 2026 – Present)
- Undergraduate Research Committee (Fall 2026 – Present)
- Developed Online Faculty Development Module: Integrating Teamwork as a Durable Skill (March 2026)
- Curriculum Committee Chair (Fall 2019 – Spring 2021)
- Curriculum Committee: Science Division Representative (Fall 2018 – Spring 2021)
- Service Learning Committee: Curriculum Committee Representative (Spring 2019)
- Great Basin Task Force (Fall 2019 – Fall 2020)
- New A&T Document Ad Hoc Writing Committee (Fall 2017 – Fall 2018)
- Advisor for Honors Thesis: Robyn DeMann, "A Needling Question: Vaccines and the Scientific and Ethical Reasons Parents Should Employ Them" (Fall 2017)
- Faculty/Peer Evaluation Team:
  -Cindy Alder (Math; 2026)
  -Nicole Taylor (Biology; 2023 – Lead)
  -Jed Rasmussen (Biology; 2020)
  -Kade Perry (English; 2019)
  -Greg Bosshardt (Biology; 2018)
  -Chad Dewey (Natural Resources; 2017)
- Foundations Assessments Reviewer (2020, 2021, 2022, 2023)
- Faculty Search Committee for New Hires:
  -Biology: Spring 2021
  -Chemistry: Summer 2018
  -English: Summer 2018

Division Committees and Service:

- Greenhouse Committee: attended greenhouse planning meetings and arranged tours of three greenhouses in Provo for committee and architects to see (2018 - 2018)
- Science Displays Committee: a 2nd floor representative (Spring 2019)
- Planetarium Steering Committee

Campus Events:

- Darwin Day: organized a week of evolution related activities campus wide (2018, 2019, 2020)
- Earth Day: class participated by setting up environmental education booths (2019)
- March Mammals Madness: solicited for brackets, displayed brackets, awarded winners (2017, 2018, 2019, 2020, 2021, 2022, 2023)

Talks & Presentations Given at the College:

- Convocation Speaker:
  - -Professing What We Don't Know: What Scholar Are Still Trying to Learn. With L. Smith, G. Wright, & S. Hood. https://youtu.be/-cKk_VwQ-SI?t=2061 (Fall 2019)
- Science Division Seminars and Brown Bags:
  - -Engaged Learning and Global Perspectives: Reflections from My Sabbatical (Mar 2026)
  - -Evolution Everywhere: Examples and Evidence for Darwin Day (Feb 2019)
  - -Evolution of Plants: Using Ecological Genetics to Understand How Plants Adapt to a Changing Environment (March 2018)
  - -The Other Faces of Evolution for Darwin Day (Feb 2019)
  - - Team Based Learning: Moving from Group Work to Developing Meaningful Skills
- Pedagogy & Practice Conference:
  - -Teaching Evolution to Increase Scientific Literacy (Oct 2017)
- Guest Lecture:
  - -DNA and the Storage of Genetic Information. Course: HONR 2850; Information in our Lives and the Universe. (Fall 2019)
- Foundation Course Workshop: Constructing My Story (Spring 2019)

Outside Presenters Brought In:

- Innovation Academy – Teaching with Inclusion and Relevance:
  - -Lais Martinez, USHE "Creating Belonging in the Classroom"
  - -Dr. Harrison Kleiner, USU "Engagement Begins With Having a Why"
- Convocation Speakers (invited and hosted speakers):
  - -Dr. Jerry Johnson, BYU "Darwin in Our Time: How Evolution Makes Life Better."
  - -Dr. Heath Ogden, UVU ""Lessons from Darwin: For Scholarship and Life."
- Campus Speaker (invited and hosted speakers):
  - -Dr. Jamie Jensen, BYU "Addressing Questions at the Intersection of Evolution and Religion."
- Classroom speakers:
  - -Fulbright scholar Dr. Natasha Ribeiro, Mozambique (Spring 2018)
  - -Melissa Landen, Utah Division of Natural Resources (Spring 2018, Fall 2018)
  - -Dr. Chad Dewey, Natural Resources, Snow College (Fall 2017, Spring 2018)
  - -Dr. Ted Olsen, Emeritus Faculty, Snow College (Fall 2017, Spring 2018, Fall 2018)

Student Clubs:

- Bio Club Advisor (Fall 2018 – Spring 2024)
  - -Co-runner up for 2020 Lorenzo Snow Club of the Year Award
  - -Consistently hold activities twice a month with a field trip each semester
  - -Speak to all clubs about holding activities in the time of COVID.
  - -Provided numerous Snow Blast Activities to recruit Snow College Students
  - -A National Association of Biology Teachers club – receive $100 a year for activities, provides green cords for club members that graduate with a 3.5+ GPA, and allows club members to apply for a $500 textbook scholarship
    - *Aubrey Ukena – NABT 2-Year College 2020 Scholarship Winner
    - *Dakota Barnett – NABT 2-Year College 2021 Scholarship Winner
    - *Jessica Willmore – NABT 2-Year College 2022 Scholarship Winner
- Wrestling Club Advisor (Spring 2017)

Other College Service:

- Volunteer Assistant Coach and Statistician for Snow College Volleyball Team (2021, 2025, 2026)
- NJCAA Volleyball Referee Staff – Line Judge (2021, 2022)
- Family Host for Snow College Volleyball Team (2022)
- Assisted three students in attending NSTA conference, joining the Utah Science teacher Association, and receiving the Noyce Scholarship for pre-science teachers
- Letters of Recommendations for students
- International Student Outreach – Friendship Family: Camillo Castelblanco

SERVICE TO THE COMMUNITY

Community Outreach Events:

- GEMS – Girls in Engineering, Math, and Science: organized and lead outreach effort for middle- and high-school girls in the community. Included over 20 hand-on science activities put on by professional from the college and community
  - -Hosted active social media pages with virtual events (2020)
  - -Over 110 attendees (2019) -50 attendees (2018)
- Science Olympiad; put on events and wrote exams for the following events:
  - -Green Generation B/C (2021, 2022, 2023)
  - -Heredity B, Designer Genes C (2020, 2019)
  - -Ecology B/C (2018)
  - -Invasive Species B/C (2017)
- Science Nights:
  - -Trophic Levels and Dissecting Owl Pellets (2019)
  - -Uses and properties of corn (2018)
  - -Science of water and snowflakes (2017)
  - -Strawberry DNA Extractions (2016)
- Other Outreach:
  - -2023 Annual Eclipse
  - -STEM FEST 2022
  - -Growing Plants in Space –Astronomy's club 50th Anniversary of the Apollo

Fieldtrips:

- Put on hands-on science demonstration for local elementary school kids

-Ephraim 2nd Grade Field Trip (2023, 2019)
-Gunnison 2nd Grade Field Trip (2019)
-Manti 1st grade field trip (2018)
-Math Contest department tours (2017)
-Ephraim 5th grade classes during GRSC dedication (2017)

Other Science Outreach:

- Botany lesson and greenhouse tour for local girl scout troop (2017)
- Brought a group of local 11 year-old girls to a planetarium show (2017)
- HS Science Teacher Workshop: Genetics in the Classroom (2016)

Non-Science Outreach:

- Advisor and mentor for local youth (2019 – *Present*)
- Coach for youth community sports teams (2019 – *Present*)
- Club Director for Sanpete Elite Volleyball (2023 – *Present*)
- Sanpete Elite 17U Volleyball Coach (2021)
- Manti High School Girls Volleyball JV and Assistant Varsity Coach (2020)

Outreach prior to Snow College:

- Organized, recruited, and mentored 7-12th grade biology teachers for a five-week Research Experience for Teachers (RET) on plant genomics. (2016, 2017)
- Treasurer for Biology Grad Student Association at UC (2012-2014)
- Volunteer judge at the Regional Science and Engineering Exposition for grades 6-12 (2011, 2013, 2014)
- Volunteer at National Lab Day at Hughes STEM High School (2011)

SERVICE TO THE PROFESSION

Reviewer for Scholarships:

NABT

Reviewer for Federal Grants:

NSF ITYC

Reviewer for Peer-Reviewed Journals:

Ecological Applications
Applications in Plant Sciences (APPS)

Review for Peer-Reviewed Teaching Resources:

Course Source

Review for Textbook Chapters:

Principles of Life, Ch 2 Life's Chemistry and the Importance of Water
Sinauer Associates Publishers/Oxford University Press and Macmillan Learning
Principles of Life by Hillis et al.
Sinauer Associates/Oxford University Press
Environmental Science: Chapter 7 Forests: Log 'em or Leave 'em? by Stiling'
Macmillan Learning's Environmental Science for a Changing World module review
Module 8.1: Food Resources: Feeding the World
Module 8.2: Food Resources: Sustainable Agriculture