

## JENNIFER M. DECHAINED

Central Washington University  
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### APPOINTMENTS

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CENTRAL WASHINGTON UNIVERSITY, Ellensburg, WA

<b>Chair, Department of Science and Mathematics Education</b>	09/2017 – present
<b>Co-Director, CWU Teach STEM</b>	09/2016 – present
<b>Professor of Science and Mathematics Education and Biology</b>	09/2020 – present
<b>Interim Chair, Department of Biology</b>	09/2020 – 06/2021
<b>Associate Professor of Science Education and Biology</b>	09/2015 – 08/2020
<b>Assistant Professor of Science Education and Biology</b>	12/2009 – 09/2015

UNIVERSITY OF GEORGIA, Athens, GA

<b>Postdoctoral Research Associate</b>	08/2008 – 12/2009
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UNIVERSITY OF MINNESOTA, St. Paul, MN

<b>Doctoral Dissertation Fellowship</b>	09/2007 – 08/2008
<b>Graduate Fellow in Environmental Biology in K-12 Schools</b>	07/2006 – 06/2007

One-year 50% appointment to work under the mentorship of an elementary science specialist to develop and teach science curriculum in collaboration with K-6 teachers at John A. Johnson Elementary School as part of the National Science Foundation GK-12 program  
Also co-led three after-school science clubs during the year

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### EDUCATION

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UNIVERSITY OF MINNESOTA, St. Paul, MN

<b>Ph.D. in Plant Biology</b>	09/2003 – 10/2008
Graduate of Preparing Future Faculty Program (PFF)	Completed 05/2006

LUTHER COLLEGE, Decorah, IA

<b>B.A. in Biology (with Honors); Minor in Chemistry</b>	09/1999 – 05/2003
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## SELECTED SERVICE AND COMMITTEE/ADVISORY LEADERSHIP AND TRAINING

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### Central Washington University

- CWU Vision, Mission and Strategic Planning Committee 2021 – 2022
- School of Education Advisory Committee 2021 – 2022
- Co-Chair, School of Education Since Time Immemorial Committee 2021 – 2022
- College of Education and Professional Studies Dean Search Committee 2021 – 2022
- Diversity Advocate, SOE Director of Field Exp./Teach Acad. Search 2021 – 2022
- Academic Chairs Organization (ADCO) 2017 – 2022
- Biological Sciences Personnel Committee 2021 – 2022
- Chair, Biological Sciences Scholarship Committee 2021 – 2022
- Biological Sciences College in the High School Liaison 2021 – 2022
- School of Education Diversity and Equity Committee 2019 – 2021
- University Diversity and Equity Committee – COTS representative 2018 – 2019
- COTS Diversity and Equity Committee 2017 – 2019
- Elementary Education Committee 2012 – 2015
- Center for Teaching and Learning 2010 – 2015
- Center for Excellence in Math and Science Education 2011 – 2016
- Masters of Science for Biology Teachers Program Co-director(2010) – Director(2011-2013)
- Professional Education Program Committee 2010 – 2011
- Biological Sciences Curriculum Committee 2012- 2020; Chair (2016-2017)
- Biological Sciences Graduate Committee 2010 – 2012

### Professional/Community/Government

- Professional Educator Standards Board Since Time Immemorial Committee 2021 – present
- South Central Washington STEM Network/ESD 105 Advisory Board 2019 – present
- Washington STEM K-12 Strategic Planning Group 2021 – 2022
- NextGen-WA Consortium Leadership Team 2017 – 2022
- Leadership & Assistance for Science Education Reform Advisory Board 2020 – 2021
- Co-Lead, NextGen-WA Consortium Engineering Integration Group 2017 – 2021
- Lead, NextGen-WA Consortium Central Washington Implementation Team 2019 – 2021
- Teachers of Teachers of Science, Washington State 2010 – 2015

### Professional Development/Training

- Organizer/Facilitator, Developing a Critical Antiracist Lens In Personal Praxis for White Educators, Quetzal Educational Consulting (~20 hrs) 2022 – 2023
- CWU Diversity Advocate for Hiring Committees Training (~8 hrs) 2021
- Leadership for Collective Practice, Social Justice Leadership as Practice, CWU Office of Inclusivity and Diversity (~15 hrs) 2020 - 2021
- Equitable Transfer Pathways in STEM Book Club (~5 hrs) 2021
- Organizer/Facilitator, Engineering Integration for Teacher Preparation (~10 hrs) 2019
- Professional Fundraising for Deans and Academic Leaders (~8 hrs) 2019
- Values Based Conflict Resolution (~16 hrs) 2019

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## FUNDED/SUBMITTED GRANTS (ALL EXTERNAL) AND AWARDS

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**J.M. Dechaine**, M. Medrano, Y. Amos, S. Flores. **In Review**. Professional Educator Standards Board (PESB) LEADER initiative. \$150,000. Submitted April 29, 2022. 08/2022 – 07/2024.

B. Hancock, E. Hancock, A. Rogan-Klyve, M. Oursland., and **J.M. Dechaine**. 2022. WA-STELLAR: Washington STEM Teachers Engaging in Leadership, Learning, and Research. National Science Foundation. Robert Noyce Program Grant. \$1,492,924. 06/2022 – 06/2028.

**J.M. Dechaine**, D. Knapp, and A. Pineseault. 2020. Advancing Equity in STEM Preservice Teacher Education through Program Assessment and Transformation. Washington State Professional Educator Standards Board Advancing Equity Grant. \$20,000. 01/2021 - 03/2023.

D. Goldhaber, D. Slavit, A. Roth-McDuffie, **J.M. Dechaine**, and R. Theobald. 2020. Searching for Connections between Teacher Program Applicant Information and Selection, and STEM Teacher Retention and Effectiveness to Inform Teacher Recruitment and Education. National Science Foundation. Robert Noyce Grant. \$1,270,888. 07/2020 – 06/2025.

**J.M. Dechaine**, M. Kurtz, I. Loverro, M. Oursland, A. Montgomery, B. Palmquist, K. Bartel, and M. Dieu. CWU Teach: An Innovative Undergraduate STEM Teacher Preparation Program. Washington State Opportunity Scholarship Opportunity Expansion Fund. \$2,189,801. 08/18/16 – 08/17/19.

**J.M. Dechaine** and A. Egger. Collaborative Research: The Next Generation of STEM Teacher Preparation in Washington State. National Science Foundation. \$298,288 CWU (Total \$3,000,000). 09/08/16 – 09/07/20.

J.M. Burke, P. Andrade-Sanchez, **J.M. Dechaine**, L.H Rieseberg, and G. Wang (Co-PIs). National Science Foundation Plant Genome Research Project. Evolutionary genomics of abiotic stress resistance in wild and cultivated sunflower. \$285,351 CWU (Total \$4,172,290). 8/15/15 – 7/31/20.

J.M. Burke, **J.M. Dechaine**, and E. Baack (Co-PIs). United States Department of Agriculture Biotech Risk Assessment Grant. A multigenerational assessment of the fate and impact of crop gene introgression into wild sunflower. \$79,169 CWU (Total \$400,000). 09/01/10 – 05/31/13.

C.A. Gazis, M. J. Kurtz, **J.M. Dechaine** (replaced B. Pratt-Situala in 2010), I.J. Quitadamo, R.S. Wagner . National Science Foundation GK-12 Program. New GK-12: Yakima Watershed Activities to Enhance Research in Schools (Yakima WATERS). \$2,864,838: 03/2007 – 02/2012.

### AWARDS

Won for STEM Teaching Program, CWU College of the Sciences Collaboration Award	May 2018
Nominated, CWU Mentor of the Year Award	May 2019
Nominated, CWU College of the Sciences Force of Nature Award	May 2018

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## PEER-REVIEWED PUBLICATIONS LAST FIVE YEARS

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**J.M. Dechaine**, J. Rios, S. Flores. *Resubmission in review*. Diversifying the STEM Teaching Workforce: A Process and Tools Described Through One Institutions' Journey. ADVANCE Journal. Resubmitted April 30, 2022.

**J.M. Dechaine** and I. Loverro. 2020. Collaboration, Communication and Community: Transitioning from a Traditional Model. In J.E. Goodell and S. Koc (Eds.), *Preparing STEM Teachers: The UTeach Replication Model* (pp. 77 – 90). Information Age Publishing Inc.

**J.M. Dechaine**. 2018. The evolving genetics of disease resistance. National Center for Case Study Teaching in Science: <https://www.nsta.org/ncss-case-study/evolving-genetics-disease-resistance>

J. Corbi, E.J. Baack, **J.M. Dechaine**, G. Seiler, J.M. Burke. 2018. Genome-wide analysis of allele frequency change in sunflower crop-wild hybrid populations evolving under natural conditions. *Molecular Ecology* 27: 233-247.

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## TEACHER EDUCATION RELATED PRESENTATIONS LAST FIVE YEARS

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**J.M. Dechaine**, J. Rios, D. Knapp. 2022 *Accepted*. Tools for working toward equity and antiracist praxis in STEM teacher education. Racial Equity and Justice Summit, UTeach STEM Educators Conference, Austin, TX: June 21.

A. Roth McDuffie, D. Slavit, **J.M. Dechaine**, D. Goldhaber, R. Theobald, N. Griggs. 2022. An equity-focused examination of application processes in mathematics and science teacher education. American Educational Research Association (AREA) Annual Meeting, San Diego, CA: April 23.

D. Slavit, A. Roth McDuffie, **J.M. Dechaine**, D. Goldhaber, R. Theobald, N. Griggs. 2022. Examining application processes for mathematics teacher education from an equity and content perspective. Association of Mathematics Teachers Annual Conference, Las Vegas, NV: February 10.

J. Rios, **J.M. Dechaine**, T. Marsh, A. Renker. 2020. Collaborating to diversity the STEM teaching workforce in Washington State. Critical Questions in Education Conference: February 17.

**J.M. Dechaine**, K. Jones, L. Graf. 2020. Lessons learned and ongoing challenges for successful STEM field experiences in rural contexts. UTeach STEM Educators Conference: June.

B. Medina Prieto, B. Meredith, C. Hall, E. Ebert, **J.M Dechaine**. 2019. Progress and Challenges in Building an Equitable K-12 STEM Ecosystem. Washington STEM Summit, Redmond, WA: November 15.

NextGen-WA Project. 2019. Preparing Next Generation STEM Teachers. 2019 STEM for All Video Showcase: May 13 – 20.

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## TEACHING

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CENTRAL WASHINGTON UNIVERSITY, Ellensburg, WA

### Courses Taught

#### *Science and Mathematics Education*

- Research Methods (STP 309) – Introduction to STEM and educational research methods for pre-service secondary STEM education candidates
- Science Education in the Elementary School (SCED 322) – Pedagogy course for pre-service elementary education candidates
- Advanced Teaching Strategies in Elementary Science (SCED 422) – Advanced pedagogy course for candidates minoring in elementary science teaching
- Teaching Secondary Science Seminar (SCED 487) – Capstone course for secondary science education majors, emphasis on preparing hiring materials and program reflection
- \*\*Communicating Science to the Public (SCED 411/511) – Service-learning course on communicating science to the public open to any graduate student and senior undergraduate students in the College of the Sciences. *I created and developed this course.*
- Science Concepts for Teachers (SCED 311) – Facilitated self-study course to fill gaps in science content knowledge for middle-level science teaching majors

#### *Biological Sciences*

- Fundamentals of Biology (BIOL 101) – Non-majors general biology
- Life Science by Inquiry (BIOL 106) – Life sciences course for preservice elementary education majors, emphasis on Next Generation Science Standards-aligned scientific practices, core concepts (DCI) and cross-cutting concepts. *I created and developed this course.*
- General Biology 1 (BIOL 181) – General biology for majors
- Fundamentals of Evolution (BIOL 300) ONLINE – General evolution course for nonmajors. *I developed this course for an online format*
- Mechanisms of Evolution (BIOL 470) – Evolution for senior-level majors
- \*\*Current Topics in Biology (BIOL 505) - Graduate student journal club
- \*\*Research Proposal/Defense Presentations (BIOL502/602) – Graduate course on developing oral research proposal (502) and thesis defense (602) presentations

Academic Advisor for ~20 - 30 students per year for Biology BA or BS with teaching endorsement