

CURRICULUM VITAE 2026

Robert B. Dorsett, MD

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I've always enjoyed trying to explain things, to others and to myself. That's what has driven me. That and the outdoors. Summer camp shaped me. That's where I learned the maps to find my way around and the skills to get from here to there. And, come to think of it, it's camp sparked the wonder that drives trying to figure things out. My parents instilled appreciation for the natural world and its exploration. In my years of teaching I tried to pass that along.

Academic and Professional Degrees

B.A., Biology (1971), Stanford University
M.D. (1975), Stanford University School of Medicine
University of Utah Family Practice Residency (1975–1978)
Board Certified, Family Practice (1982)

Teaching

Secondary and Community College

Math and Science Tutor, Meeker Public Library, Meeker, CO (2015–present)
Instructor of Science and Mathematics, Colorado Northwestern Community College (CNCC), concurrent enrollment, Meeker, CO (2014–2015)
Instructor of Science and Mathematics, Meeker High School, Meeker, CO (2001–2014)
Part-time Instructor, CNCC Meeker Center (1981–1986, 1993–1999)
Instructor in Chemistry (Visiting Professor), Western State College of Colorado, Spring semesters 1998 and 2000

Higher Education

Assistant Professor of Natural Science and Director of the Natural Science Program, Providence College, RI (1987–1993)

International

Instructor in basic medical science, clinical medicine, and surgery, Rift Valley Provincial Medical Training Center, Nakuru, Kenya, as a Peace Corps volunteer (1978–1981)

Courses I've Taught

At Meeker High School: College-level (concurrent enrollment) Physics, Algebra 2, AP Calculus AB and BC, Multivariable Calculus, Statistics, College Algebra, Linear Algebra, Chemistry, Introductory Biology, Anatomy and Physiology, Ecology, Botany, Zoology, Computer Applications, Computer Programming, and Research Methods.

At Western State College of Colorado: Organic Chemistry (Spring 2000); Introduction to Organic and Biological Chemistry (Spring 1998).

At Providence College: General Biology, Modern Physics, Physical Science, Astronomy, and Physical Geology.

At Colorado Northwestern Community College: Algebra I, College Algebra, Probability and Statistics, Astronomy, Botany, Pharmacology, and Ornithology.

Curriculum Development

In fifteen years at Meeker High School, I added eight new courses to the science curriculum and restructured two others. New courses include Biochemistry, Human Anatomy and Physiology, Ecology, Aquatic Biology, Zoology, Botany, Computer Programming, and Research Methods. I also restructured the existing courses in Biology, Physical Science, and Computer Applications.

I developed the Project Calculus web resource for the Western Colorado Math Consortium, and I developed other resources to improve math teaching across the curriculum at Meeker High School. I helped develop a technology curriculum for the Meeker School District, including professional in-services on the use of Artificial Intelligence in the classroom.

Science Fair

I initiated the Science Fair program at Meeker High School. Several students won honors at the Colorado State Science Fair; five qualified for the International Science and Engineering Fair.

International Education

Working with Ecology Project International, I led student groups in field research, conservation, and cross-cultural programs in Costa Rica, the Galápagos Islands, Belize, and the Sea of Cortez. More than ninety of my students participated in these programs. That program is now well established in our community, and it continues under new leadership after my retirement.

Medical Service

Family Practice, Pioneers Hospital Family Practice Clinic, Meeker, CO (1981–1987). I provided care in pediatrics, general medicine, general surgery, obstetrics and gynecology, emergency medicine, and counseling in this small, rural community in northwestern Colorado. Throughout, I taught courses at our community college and published articles related to health care in our local newspaper.

Consulting Physician and Instructor, Rift Valley Provincial Medical Center and Medical Training Center, Nakuru, Kenya (1979–1981). Peace Corps Volunteer, three years of service.

Research

Research Projects

Pulmonary oxygen toxicity in newborn, and antioxidant therapy for bronchopulmonary dysplasia (mouse model), with Dr. William H. Northway, Jr., Stanford University School of Medicine (1973–1975). As a medical student I worked with a research team using experimental models to understand the pathophysiology of high concentration oxygen therapy required by premature babies. I initiated studies testing the potential benefit of alpha-tocopherol in preventing oxidative injury.

Chemical ecology of *Polemonium foliosissimum*. I conducted an ongoing study of this subalpine plant, including its chemical interactions with pollinating insects and insect herbivores. I discovered the partition of volatile chemicals between calyx and corolla, and I discovered gynodioecy in populations of the plant.

Climate change in the Flat Tops region, northwestern Colorado. I collect and analyze data on temperature, precipitation, and river discharge in the White River basin. The study now includes monitoring the macroinvertebrate community of the river; *Ephemeroptera*, *Plecoptera*, and *Trichoptera* populations measure the health of the river. On a broader scale, I monitor the global jet stream for climate-induced changes in its flow and reach.

Quantum gravity. It is my long-term aspiration to understand the essential structure of spacetime—what this universe is made of and how it evolves. I follow current publications and lectures by leading researchers, and I engage with the ideas as deeply as my mathematical preparation allows. I have contribute to the conversation with ideas and publications of my own.

Publications

Peer-Reviewed Articles

- Dorsett, R., and Pike, A. 1995. Partition of fragrances between calyx and corolla in *Polemonium foliosissimum*. *American Midland Naturalist* 134: 236–243.
- Irwin, R.E., and R. Dorsett. 2002. Volatile production by buds and corollas of two sympatric, confamilial plants, *Ipomopsis aggregata* and *Polemonium foliosissimum*. *Journal of Chemical Ecology* 28: 565–578.
- Dorsett, R.B. and Alison K. Brody. 2014. Gynodioecy in *Polemonium foliosissimum*: protection from a predispersal seed predator? (Unpublished)

Texts and Educational Writing

Over the years I wrote textbooks to elucidate new discoveries, especially in fundamental physics and cosmology, that were not available in standard classroom texts. More recently I maintain an ongoing web series reporting the effects of climate change in the White River Basin of northwestern Colorado. The following PDF texts are available at www.dorsett-edu.net:

- Dorsett, R.B. 2014. *Essentials of Modern Physics: an introduction for high school students*.
- Dorsett, R.B. 2016. *Strings: an introduction for high school students (and beyond)*.
- Dorsett, R.B. 2018. *Physics since AdS/CFT*.

Dorsett, R.B. 2019. *Climate Science*.

Dorsett, R.B. 2025. *Climate Change in the White River Basin*.

And others available from my home page at dorsett-edu.net

Continuing Education

I continue formal coursework into my retirement, motivated by the same curiosity that shaped my research and teaching.

Wesleyan University / Coursera (2017): *Introduction to Complex Analysis*

UC Davis / Coursera (2018): *Spanish Vocabulary*

Stanford University / Coursera (2019): *Machine Learning*

Stanford University / Coursera (2019): *Neural Networks and Deep Learning*

Stanford University / Coursera (2019): *Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization*

UC Berkeley / Coursera (2020): *Quantum Computing*

DeepLearning.ai (2026): *Agentic AI*

CrewAI (2026): *Multi-Agent AI with CrewAI*

Professional Affiliations and Licenses

Colorado Professional Teaching License, with endorsements in Science and Mathematics

Board Certified, Family Practice (1982)

Qualified for Tenure, Providence College

Member, American Association for the Advancement of Science

Member, Union of Concerned Scientists

Administration and Civic Service

Member, Meeker School Board, Meeker School District RE-1 (2015–2023)

Director, Natural Science Program, Providence College, RI (1992–1993).

Awards and Recognition

Amgen Award for Excellence in Science Teaching
Jared Polis Award for Teaching Excellence
Boettcher Foundation Teacher Recognition Award

Outdoors

I completed the North Cascades Wilderness Course with the National Outdoor Leadership School (NOLS), and in Fall 2015 I completed the NOLS Baja Coastal Sailing course. In Fall 2018 I was co-leader of a rim-to-rim Grand Canyon expedition with The Grand Canyon Conservancy.

Appreciation

Most of all I thank my parents and grandparents for camp. For thirty-plus years they operated Skyland Camps at the base of Crested Butte Mountain in the Gunnison Country of Colorado. More than anything else, camp made me who I am. I spent all my summers there, growing up, when that Country was still wild. I learned to saddle a horse, to cast a fly, hit a target bullseye, have the patience to polish a cedar lamp. I learned to appreciate the old cowboy songs and tell a story around the campfire. I learned to get along with other kids from all backgrounds. Most of all, I learned the beauty and the wonder of the outdoors. I have carried that all my life, and I have tried to pass it along, leading school groups and friends on outdoor adventures mountaineering, backcountry skiing, whitewater kayaking, and rafting. And just exploring with my dogs in the hills around home.