

Teacher Enhancement Program for K-12 Educators

AT THE COLORADO SCHOOL OF MINES



SUMMER 2023

<http://te.csmspace.com>

COLORADO SCHOOL OF MINES

Teacher Enhancement Program

Summer 2023

REGISTRATION

All of the courses announced in this brochure are coordinated through the Office of Special Programs and Continuing Education at the Colorado School of Mines. **Unless another organization or individual is specified as the registration contact in a course listing, enrollment forms and tuition check(s) should be mailed to:**

Teacher Enhancement Program
Colorado School of Mines
Green Center, Ste. 221
Golden, CO 80401-0028
(303) 384-2692

Courses are added to our website frequently, to view the most up-to-date course listings or to order an official transcript, visit our home page: te.csmospace.com

You must pre-register at least 48 hours prior to the start of a workshop (Saturday and Sunday excluded). Do not show up for a class without a confirmed registration from the Teacher Enhancement Office or person/organization taking the registrations. You are likely to be turned away by the instructor. CSM reserves the right to assign audit (non-credit) status with full tuition responsibility to walk-in participants.

TUITION AND REFUND POLICIES

Registration through Teacher Enhancement must be accompanied by full tuition payment by check or credit card authorization. If a course registrant cancels or transfers an enrollment, the tuition amount **minus** a \$25 cancellation/transfer fee will be refunded or applied to another course. Unless otherwise indicated, you must cancel at least 48 hours in advance of a workshop to qualify for a refund (Saturday and Sunday excluded). **Once a class has begun, no full or partial tuition refunds will be granted.** Colorado School of Mines reserves the right to cancel a course (usually one week prior to delivery) if the minimum enrollment is not reached (with full tuition refund to registrants). Colorado School of Mines and the Teacher Enhancement Office will not be liable for any other expenses incurred by registrants.

When paying tuition by check, please make out a **separate** check to “CSM Continuing Education” for **each** course and for **each** participant.

ATTENDANCE POLICY

Course participants are expected to attend each class session in its entirety. This includes arriving on time and staying until dismissal. Credit will be granted for a course only when the full contact hour requirements have been met. Missed sessions of a course cannot be made up by attending subsequent offerings of the same class or by completing additional assignments. In consideration of the instructor and other course registrants, **DO NOT** bring children of any age to class under any circumstances.

TRANSCRIPT AND CREDIT INFORMATION

The Teacher Enhancement Office and Colorado School of Mines cannot be responsible for meeting individual deadlines for credits toward teacher licensure and/or salary increases. Official transcripts for current course work can be printed upon written request approximately two weeks after the instructor submits course grades to the Teacher Enhancement Office. Individual letters of completion are not available. We are unable to give you any information via phone or email on what courses appear on your transcript due to FERPA. Graduate-level semester credit offered for each course is applicable for license renewal in the State of Colorado and is generally accepted elsewhere. The credit is not applicable toward a degree at CSM. Request for Transcript of Record forms can be found at <http://te.csmospace.com>.

All policies and requirements stated above are program-wide and not at the discretion of individual instructors. Enrollment in any course offered for CSM credit implies your agreement to comply with program policies and requirements.

Summer 2023 Course Offerings

PARIS TO NORMANDY: WORLD WAR I AND II SITES (K-12)

CT-0964-23D

4 semester credit hours

Dates: June 1-11

Locations: Belgium & France

Instructor: Joyce Webb

Tuition Fee: \$4,885 (includes lodging, ground transportation, entry fees, credit)

Explore trenches and bunkers used during the German occupation of Belgium's North Coast. Tour the battlefields in Southern Belgium's Flanders Field; then travel to Normandy for an in-depth view of WWII's beaches, cemeteries and other war sites. Continue your journey to Paris for a visit to one of the world's best WWI and II museums. Learn how the German occupation affected Belgium, Paris, and the rest of France.

To register or for more information, contact:

Joyce Webb, 719/229-5482

joycewebb@ymail.com

www.coloradorivertrip.com

ROXBOROUGH STATE PARK TEACHERS' WORKSHOP (K-12)

CT-2203-23D

1 semester credit hour

Dates & Times:

June 5-6 (8:30am-3:00pm)

June 8 (8:30am-2:00pm)

Location: Roxborough State Park, Littleton

Course Coordinator: Tom Smithwick, 303/993-7168

Tuition Fee: \$100 (includes credit)

Experience a unique setting of 1.7 billion years of geologic history. Learn about the diversity of ecosystems that provide habitat for a variety of plants and animals while you discover our standards-based curriculum. Leave with a site-specific manual and lesson plans created by you and your peers. The Ute STEM Project, sponsored by History Colorado and National Science Foundation, will be introduced. This creative elementary-level educational tool meets Colorado's Science Standards.

To register, mail the CSM enrollment form and tuition check made payable to:

"Friends of Roxborough State Park"

Roxborough State Park

4751 E. Roxborough Dr.

Littleton, CO 80125

CHARLESTON, SC AND ITS LOWCOUNTRY (K-12)

CT-2306-23D

4 semester credit hours

Dates: June 5-13

Location: Charleston, SC

Instructors: Danette Ulrich & Ali Dowd

Registration Fee: \$2,110 (includes credit, lodging, ground transportation, entrance fees)

South Carolina has 187 miles of Atlantic coastline and numerous barrier islands known as the lowcountry. Charleston is the crown jewel, one of America's most historic cities brimming with history, rich culture, and a passion for preservation. It is a paradise for outdoor enthusiasts and eco-minded individuals. It is both beautiful and environmentally vulnerable.

To register or for more information, contact:

Danette Ulrich

303/419-3693 or danetteu@gmail.com

Livingitlearningit.com

ALL ABOUT MINING (K-12)

CT-2204-23D

1 semester credit hour

Dates: June 5-6

Time: 8:00am-5:00pm (June 5) & 7:00am-5:00pm (June 6)

Location: CSM campus, Golden

Instructor: multiple guest speakers

Course Coordinator: Sandi Sullivan

Tuition Fee: Free but you must pre-register

Does your everyday life depend on mining? Why is responsible mining key to a low carbon economy? How does mining impact our society and world? Explore these questions and more through exciting hands-on sessions, ready-to-use lesson plans, and fun field trips!

To register or for more information, contact:

Sandi Sullivan, All About Mining/CMAEF

719/588-0466 or workshops@allaboutmining.org

www.allaboutmining.org

ALL ABOUT MINING: LEADVILLE (K-12)

CT-2305-23D

1 semester credit hour

Dates: June 8-9

Time: 7:30am-5:00pm (June 8) & 8:30am-4:30pm
(June 9)

Location: Leadville

Instructor: multiple guest speakers

Course Coordinator: Sandi Sullivan

Tuition Fee: Free but you must pre-register

How important is mining to Leadville and our everyday lives? Is modern mining today really any better than mining in the past? Explore the top-rated National Mining Hall of Fame Museum and then tour the Climax Molybdenum Mine.

To register or for more information, contact:

Sandi Sullivan, All About Mining/CMAEF
719/588-0466 or workshops@allaboutmining.org
www.allaboutmining.org

TALES & TRAILS OF COLORADO GHOST MINES (K-12)

CT-1165-23D

1 semester credit hour

Dates: June 12-13

Time: 8:00am-5:00pm

Locations: Fairplay & Alma

Instructor: Melanie Phelps

Tuition Fee: \$175 (includes credit)

Capture gold fever as you explore mines, mills, and ghost towns near Fairplay. Peer through broken window frames and trek twisted rails in Leavick. Creep softly through Alma's past looking for the legendary Silver Heels. Let the timberline mines and the railroad history of Como ignite your imagination. Relive the fortunes, dreams, and disasters of Colorado mining history.

To register or for more information, contact:

Melanie Phelps, 719/252-1789
melaniephe@aol.com
www.coloradorivertrip.com

REVOLUTIONIZING READING (K-8)

CT-2022

1.5 semester credit hours

Dates:

Session I: June 12-14

Session II: July 17-19

Time: 8:00am-4:00pm

Location: Hilton Gardens, Ft. Collins

Instructor: Bri Luna

Tuition Fee: \$95 (**payable during workshop**)

Registration Fee: \$750 (includes course materials and book)

The fundamental process for teaching literacy is changing based on the current science of reading. This class introduces research-based, classroom-proven strategies and systems to effectively teach the 5 Components of Reading to students of all ages. Gain an in-

depth understanding of the importance of systematic and explicit instruction in phonological awareness, phonics, fluency, vocabulary, and comprehension. Learn how to recognize common reading deficits such as dyslexia, and what techniques to implement to foster reading growth. Utilizing Structured Literacy and the Orton Gillingham approach, this will ensure you are teaching literacy in the most effective way while building enthusiasm and a love of reading in all students. Leave with resources and techniques you can immediately implement in the classroom.

To register or for more information, contact:

Bri Luna, Reading Rev
970/217-1085 or bri@readingrev.com

CUBA: ITS COUNTRY, CULTURE, AND PEOPLE (K-12)

CT-1718-23D

3 semester credit hours

Dates: June 12-19

Location: Havana & Cienfuegos, Cuba

Instructor: Elena Sodano, 303/204-8470 or
sodano@mac.com

Tuition Fee: \$145 (**payable during trip**)

Registration Fee: \$3,090 (includes airfare, meals, lodging, ground transportation, entrance fees)

Discover Cuba, a mid-century time capsule where 1950's American autos and abandoned Soviet investments clash. Colonial architecture, UNESCO heritage sites, dramatic valleys, pristine beaches, and untouched rural communities are just a few reasons why Cuba is fascinating. Combine all this with Cuba's people to create the perfect educational and cultural experience.

To register:

Eli Arroyo, Your Cuba Travel
910/635-6955 or eli@yourcubatravel.com

INTRODUCING GREEN CHEMISTRY IN THE HS CLASSROOM (GR. 9-12)

CT-1158-23M

3 semester credit hours

Dates: June 12-August 7

Virtual meetings: June 29, July 14, August 2 @ 9am
MST

Location: online

Instructor: Cassidy Javner

Course Coordinator: Michelle Ernst Modera

Tuition Fee: \$149 (**payable during workshop**)

Registration Fee: \$475

Green chemistry is a useful tool to remove hazards and make the lab a safer place for students, while also providing context for chemistry concepts. We will focus on the 12 principles of green chemistry, lab safety, and the creation of green chemistry lessons and labs.

To register or for more information, contact:

Michelle Ernst Modera, Beyond Benign
315/521-3450
michelle_ernstmodera@beyondbenign.org

ADVANCED GREEN CHEMISTRY: CONNECTIONS TO OUR WORLD (GR. 9-12)

CT-1623-23M

3 semester credit hours

Dates: June 12-August 7

Virtual meetings: June 12, 26, July 10, Aug. 7 @ 9am MST

Location: online

Instructor: Annette Sebuyira

Course Coordinator: Michelle Ernst Modera

Tuition Fee: \$149 (**payable during workshop**)

Registration Fee: \$475

Deepen your understanding of green chemistry with lessons and applications linked to NGSS. Investigate the chemical solutions of Presidential Green Chemistry Challenge technologies and create relevant STEM based lessons to utilize in your classroom.

To register or for more information, contact:

Michelle Ernst Modera, Beyond Benign

315/521-3450

michelle_ernstmodera@beyondbenign.org

SUSTAINABLE SCIENCE (GR. 7-12)

CT-2026-23M

1 semester credit hour

Dates: June 12-July 2

Online plus two 1 hour synchronous virtual meetings

Location: online

Instructor: Erin Mayer

Course Coordinator: Michelle Ernst Modera

Tuition Fee: \$67 (**payable during workshop**)

Registration Fee: \$150

This course will provide you an introduction to Green Chemistry and provide the skills and knowledge to integrate sustainability through chemistry in your classroom. By investigating how industry is applying sustainable science you will contextualize key science topics, such as ecosystem dynamics, matter and its interactions, and earth and human activity.

To register or for more information, contact:

Michelle Ernst Modera, Beyond Benign

315/521-3450

michelle_ernstmodera@beyondbenign.org

DARK SKY SITES IN SOUTHERN COLORADO (K-12)

CT-2034-23D

1 semester credit hour

Dates & Times:

9:00am, June 16 through 9:00pm, June 17

Location: Westcliffe

Instructors: Danette Ulrich & Ali Dowd

Registration Fee: \$205 (includes credit, entrance fees, & materials)

Visit two designated “Dark Sky” sites. In Westcliffe and Silver Cliff view the night sky through a 14” tracking telescope then visit the Great Sand Dunes National Park, a designated Colorado Dark Sky Park. Discover the area’s heritage, historical and cultural significance and the 7 ecosystems of the Great Sand Dunes.

To register or for more information, contact:

Danette Ulrich

303/419-3693 or danetteu@gmail.com

Livingitlearningit.com

CLIFF DWELLINGS AND VOLCANOES OF NEW MEXICO (K-12)

CT-1031-23D

1 semester credit hour

Dates: June 17-18

Location: meet in Pueblo; drive to NM

Instructor: Melanie Phelps

Tuition Fee: \$175 (includes credit)

Experience the volcanoes of New Mexico and the Bandelier ruins of the ancient Pueblo Indians who tunneled their homes into volcanic tuff cliffs. See the youngest volcanic fields in the continental U.S., with cinder cones, a massive caldera, radial dikes, and more. Discover the Rio Grande Rift, which causes the volcanoes as North America was being stretched apart. Learn the history of southern Colorado coal mines and labor wars, and tour the site of the Ludlow Massacre.

To register or for more information, contact:

Melanie Phelps, 719/252-1789

melaniephe@aol.com

www.coloradorivertrip.com

RUINS AND VOLCANOES OF NEW MEXICO II (K-12)

CT-1402-23D

2 semester credit hours

Dates: June 19-22

Location: meet in Santa Fe, NM

Instructor: Melanie Phelps

Tuition Fee: \$355 (includes entrance fees, credit)

Explore the history of Santa Fe, a trading hub of Old Mexico. Hike through Petroglyph National Monument where the ancient natives etched 15,000 petroglyphs into the black basalt. Continue on the trail of the volcanoes of New Mexico into El Malpais to explore lava tubes, pahoehoe, aa, cinder cones, craters, and calderas. Seek out the peacefulness of Chaco Canyon, one of the largest trade centers of the Ancient Pueblo Indians.

To register or for more information, contact:

Melanie Phelps, 719/252-1789

melaniephe@aol.com

www.coloradorivertrip.com

MINING ACROSS NORTHWEST COLORADO FIELD TRIP (K-12)

CT-2304-23D

2 semester credit hours

Dates: June 19-22

Time: 7:00am, June 19 through 6:00pm, June 22

Location: Northwestern Colorado mining sites

Instructor: multiple guest speakers

Course Coordinator: Sandi Sullivan

Tuition Fee: \$300 (includes credit, transportation, meals & lodging)

Pre-requisite: Completion or concurrent enrollment in All About Mining or STEAM in Mining course.

A guided adventure to several important mining sites in northwestern Colorado. Your journey will take you deep underground and through the processes to provide critical resources to your life. Experience a few of the modern marvels of our state's impressive mining industry.

To register or for more information, contact:

Sandi Sullivan, All About Mining/CMAEF

719/588-0466 or workshops@allaboutmining.org

www.allaboutmining.org

MINING FOR A STEAM EDUCATION (K-12)

CT-2205-23M

1 semester credit hour

Dates: June 20-July 31

Time: online with 3 live google meet calls

Instructor: multiple guest speakers

Course Coordinator: Sandi Sullivan

Tuition Fee: Free but you must pre-register

Help your students discover the many STEAM concepts throughout the mining cycle. STEAM represents educational concepts that focus on Science, Technology, Engineering, Art, and Mathematics. STEAM-engaged students explore scientific concepts collaboratively through inquiry and problem-based learning methods throughout a creative process.

To register or for more information, contact:

Sandi Sullivan, All About Mining/CMAEF

719/588-0466 or workshops@allaboutmining.org

www.allaboutmining.org

WASTEWATER AND AQUATIC BIOLOGY (K-12)

CT-1082-23D

0.5 semester credit hour

Date: June 20

Time: 8:00am-5:00pm

Location: Metro Water Recovery, Denver

Instructors: Steve Lundt, Jordan Parman

Course Coordinator: Colleen Miller

Tuition Fee: no charge (you must pre-register)

Receive an overview of the treatment process at Metro Water Recovery and highlight the environmental benefits to the South Platte River. Tour the Robert W. Hite Treatment Facility. Receive habitat and water quality assessment information and a hands-on fish and macroinvertebrate survey.

To register or for more information, contact:

Colleen Miller, Metro Water Recovery

303/286-3184

cmiller@metrowaterrecovery.com

BIOTECHNOLOGY EXPERIENCES IN THE CLASSROOM (GR. 9-12)

CT-2212-23D

1 semester credit hour

Dates: June 20-22

Time: 9:00am-3:30pm

Location: Front Range Community College, Westminster

Instructors: Janie Butler, Fan Yeung

Registration Fee: Free but you must pre-register (includes credit)

Learn about molecular biology labs and lessons designed to introduce students to the field of biotechnology; learn more about the Biotechnician Assistant Credentialing Exam (BACE) credential for students; and meet with local biotech industry employees to learn more about the field and emerging research.

To register or for more information, contact:

Janie Butler, Colorado BioScience Institute
303/749-0078 or jbutler@cobioscience.com

LEADVILLE AND THE COLORADO MINERAL BELT (K-12)

CT-2101-23D

1 semester credit hour

Dates: June 23-24

Time: 8:00am-5:00pm

Location: Leadville

Instructors: Danette Ulrich & Ali Dowd

Registration Fee: \$210 (includes credit, train trip, museum entrances)

Explore the history of Leadville and Twin Lakes during Colorado's gold and silver "booms". By 1879 silver mining was in full swing in Leadville, home to over 30,000 people. The town featured modern amenities for the newly wealthy. Brothels, gambling halls, and saloons enticed the more colorful element who were seeking to get rich, fortunes were made for many famous people. Neighboring Twin Lakes was an important transportation hub between Leadville and Aspen. As gold played out and silver prices plummeted Leadville's economy faltered, mines closed, and unemployment rose. Today it maintains a vibrant community through its history and wealth of outdoor activities.

To register or for more information, contact:

Danette Ulrich
303/419-3693 or danetteu@gmail.com
Livingitlearningit.com

MUSEUMS OF PARIS (K-12)

CT-04132-23D

4 semester credit hours

Dates: June 13-20

Location: Paris, France

Instructor: Joyce Webb

Tuition Fee: \$4,885 (includes lodging, ground transportation, entrance fees, credit)

Visit the Louvre, Orsay, Rodin, and Picasso Museums plus tour Versailles. Climb Notre-Dame, cruise the Seine, zip up the Eiffel Tower, and saunter down the Avenue des Champs Elysees to the Arc de Triomphe. Capture the romance and joie de vivre that Paris exudes.

To register or for more information, contact:

Joyce Webb, 719/229-5482

joycewebb@ymail.com

www.coloradorivertrip.com

ALASKA: GLACIERS, GOLD, AND GRIZZLIES (K-12)

CT-1304-23M

6 semester credit hours

Dates: June 28-July 12

Location: Alaska

Instructor: Melanie Phelps

Tuition Fee: \$6,000 (includes some airfare, ferry, tours, lodging, ground transportation, credit)

Explore Alaska's towering mountains with sparkling deep blue glaciers, fjords, whales, grizzlies, sea lions, and rookeries. Cruise the Inland Passage on the Marine Alaska Highway Ferry. Tour Ketchikan Totem Pole Park, Glacier Bay, Kenai Fjords, Denali, and Lake Clark to see fishing grizzlies.

To register or for more information, contact:

Melanie Phelps, 719/252-1789

melaniephe@aol.com

www.coloradorivertrip.com

BONAIRE: CORAL REEF BIODIVERSITY ENCHANTMENT (K-12)

CT-2002-23M

4 semester credit hours

Dates: July 17-26

Location: Ecuador

Instructor: Melanie Phelps

Tuition Fee: \$2,375 (includes lodging, ground transportation, entrance fees, credit; does not include airfare)

Coral reefs are among the world's most beautiful, most diverse, and most endangered ecosystems. Although they only occupy 1% of the land, over 25% of marine species live there, yet 90% of reefs may be damaged by 2050. Visit, dive, snorkel, love and study this magical ecosystem. Bonaire boasts some of the healthiest coral reefs on Earth.

To register or for more information, contact:

Melanie Phelps, 719/252-1789

melaniephe@aol.com

www.coloradorivertrip.com

FORESTS TO FAUCETS (AURORA'S WATER RESOURCES) (K-12)

CT-0668-23M

1.5 semester credit hours

Dates: July 18-20

Time: 8:00am-5:00pm

Location: Morrison Nature Center, Aurora

Tuition Fee: \$95 (**payable during workshop**)

Registration Fee: \$50 (checks returned upon successful course completion)

Learn where your drinking water comes from. Explore our mountain watersheds, conduct water quality studies, tour a xeriscape garden, and visit a drinking water and wastewater treatment facility. Receive Project Learning Tree and WET curriculum guides and access to Aurora Water's innovative educational opportunities. **CSM tuition will be paid by Aurora Water for teachers who teach in the City of Aurora.**

To register or for more information, contact:

Natalie Brower-Kirton, 303/927-8564

nbrower@auroragov.org

FORESTS TO FAUCETS 2 (K-12)

CT-1734-23M

0.5 semester credit hour

Date: July 25

Time: 8:00am-5:00pm

Location: Senac Creek Nature Center, Aurora Reservoir

Tuition Fee: \$50 (**payable during workshop**)

Registration Fee: \$25 (checks returned upon successful course completion)

This workshop focuses on protecting our water by learning more about conservation, water pollution prevention, and climate change. Receive a Project WET curriculum guide and a Climate Resilience booklet along with access to Aurora Water's innovative resources. **CSM tuition will be paid by Aurora Water for teachers who teach in the City of Aurora.**

To register or for more information, contact:

Viviana Zavala, 303/326-8879

vzavala@auroragov.org

Course Enrollment Form

Please Print

Full Name: _____
 Mailing Address: _____
 City: _____ State: _____ Zip: _____
 Social Security Number*: _____ Date of Birth: _____
 Telephone: (school) _____ (home/cell) _____
 School: _____ Grade Level: _____
 Email: _____

When CSM is the registration contact, I prefer to receive a confirmation letter by:

o E-mail: _____

o Mail ***required if taking course for credit**

Are you Hispanic/Latino? Yes/No

Select one or more:

_____ American Indian or Alaska Native _____ Native Hawaiian or Other Pacific Islander
 _____ Asian _____ White
 _____ Black or African American

Indicate the course(s) for which you are registering

Course #	Course Title	Course Dates	Tuition
CT-_____	_____	_____	_____
CT-_____	_____	_____	_____
CT-_____	_____	_____	_____
CT-_____	_____	_____	_____
CT-_____	_____	_____	_____

Total: _____

Please follow carefully the specific registration instructions which accompany each course listing in this catalog. When the Teacher Enhancement Program is the registration contact fill out the enrollment form and mail along with the tuition amount to the Colorado School of Mines Teacher Enhancement Program. Please send a separate check for each course, and for each participant. Do NOT mail this form to us unless we are listed as the registration contact!

Make checks payable to CSM Office of Continuing Education.

Mail check(s) and application form (unless otherwise noted in course listing) to:

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