

Teacher Enhancement Program for K-12 Educators

AT THE COLORADO SCHOOL OF MINES



FALL 2022

COLORADO SCHOOL OF MINES

Teacher Enhancement Program

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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 checks/credit card information should be mailed or faxed to:**

Teacher Enhancement Program
Colorado School of Mines
924 16th St., Suite 221
Golden, CO 80401
(303) 384-2695 FAX
(303) 384-2692

Visit our home page at
<http://te.csmspace.com> for the
most up-to-date course listings.

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. 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 www.mines.edu/Outreach/Cont_Ed/tep15.html.

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.

Fall Course Offerings

VIRTUAL FALL BIOTECHNOLOGY IN THE CLASSROOM (GR. 9-12)

CT-2226-22F

0.5 semester credit hour

Dates: October 5, 12, 26 & November 2

Time: 4:00pm-6:00pm

Location: Zoom sessions

Instructors: Janie Butler, Fan Yeung

Registration Fee: 0 (you must pre-register)

Learn 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 learn more about emerging biotech research and career opportunities for students.

To register or for more information, contact:

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

BEYOND THE CLASSROOM: AQUATIC ECOLOGY RESEARCH & ENVIRONMENTAL ISSUES

(GR. 4-12)

CT-1742-22F

1 semester credit hour

Dates & Times:

October 24 (7:30am-8:00pm) & October 25 (7:30am-4:30pm)

Location: Keystone Science School

Instructors: Douglas Kennedy, Megan Adamson

Tuition Fee: \$55 (**payable during workshop**)

Registration Fee: \$70 (includes meals, lodging, materials)

Get all the tools necessary to facilitate a complete unit on environmental issues. The lessons from this workshop can form a stand-alone unit or supplement a KSS overnight field trip. Explore challenging topics, such as climate science and how it relates to ecology, while learning about all sides and perspectives of an issue. We will be using the topic of water in the West to explore an environmental issue but lessons we present will be adaptable to any local, regional, or global issue. Receive lesson plans that are adaptable to any grade. Gain ideas and techniques for engaging the local community while learning how to get students out of the classroom and experiencing the chosen issue first-hand.

To register or for more information, contact:

Brooke Morehardt, Keystone Science School
bmorehardt@keystonescienceschool.org
970/468-2098

Denver Museum of Nature & Science Course Offerings

Note: Register for Museum courses through the Museum. See box below.

THE SCIENCE OF LEARNING & MEMORY (K-12)

CT-2217-22F

0.5 semester credit hour

Date: September 30

Time: 8:00am-4:00pm

Location: Denver Museum of Nature & Science

Instructors: Andrew Watson, Tim Blesse

Tuition Fee: \$35

Registration Fee: \$250

Join nationally recognized teacher, presenter, and author Andrew Watson for a day-long workshop on the “Science of Learning.” See how understanding the ways that working memory and long-term memory interact with one another can help you create learning experiences that are more challenging, motivating, and “sticky.” Previous participants love how Andrew’s workshops have changed the way they think every day about lesson design and facilitation, without adding to their workload.

2022 MIND & BRAIN EDUCATION MINI CONFERENCE (K-12)

CT-2214-22F

0.5 semester credit hour

Dates: October 1-30

Time: October 1 (8:00am-3:00pm) plus classroom implementation

Location: Denver Museum of Nature & Science

Instructor: Tim Blesse

Tuition Fee: \$35

Registration Fee: \$65

We are bringing together local facilitators who will present some evidence-based strategies that you can walk away and use tomorrow. Choose between several 90-minute concurrent sessions held in 3 rounds.

To register for any DMNS course:

By phone M-F 9am-5pm, 303/370-6000

Register online:

<https://www.dmns.org/learn/teacher-professional-development/k-12-professional-development/>

EcoAdventure Course Offerings

Note: Register for EcoAdventure courses through EcoAdventures. See box on next page.

ELK BUGLING (K-12)

CT-95105-22F
1 semester credit hour
Dates: September 24-25
Time: 12:00pm-7:30pm
Location: EcoAdventures, Morrison
Instructor: Pam Batton
Tuition Fee: \$215

Observe and listen to the bull elk bugling during the mating season. Explore adaptations, behaviors, and human/elk interactions through activities and observation. By the end of class you'll be thinking like an elk and understand the important ecological role of this large herbivore.

BEYOND THE SPIRIT OF 1776: LIFE IN COLONIAL AMERICA (K-12)

CT-1101-22F
1 semester credit hour
Dates & Times:
October 1 (9:00am-5:00pm)
October 2 (9:00am-4:00pm)
Location: CSM campus, Golden
Instructor: Trey Corkern
Tuition Fee: \$215 (**\$235 after September 15th**)

Discover how we built a nation, from before the arrival of the Pilgrims at Plymouth to the fledgling colony's victory over the British Empire. Learn how they farmed crops, raised their children, defended their homesteads, traded with the indigenous peoples, built cottage industries, and adapted to life in the New World. Try your hand at pickling, drop-spinning, blacksmithing, and more.

DENVER WALKING TOUR: INTRO TO COLORADO HISTORY (K-12)

CT-1924-22F
1 semester credit hour
Dates & Times:
October 8 (9:00am-5:00pm)
October 9 (9:00am-4:00pm)
Locations: Lakewood
Instructor: Trey Corkern
Tuition Fee: \$215 (**\$235 after Sept. 22nd**)

Learn Colorado's history by walking the streets of Denver. Dive into the (in)famous personalities that forged a river-bottom settlement into the Queen City of the Plains. Spend two days hopping the light rail, drinking in fabulous architecture, and sharing the best stories, food, and drink that Denver has to offer.

COLORADO'S UNCIVIL WARS: SAND CREEK, JULESBURG, & THE WAR BETWEEN THE STATES (K-12)

CT-1719-22F
1 semester credit hour
Dates & Times:
October 22 (9:00am-5:00pm)
October 23 (9:00am-4:00pm)
Location: LaJunta, CO
Instructor: Trey Corkern
Tuition Fee: \$215 (**\$235 after Oct. 6th**)

The Civil War and the Indian Wars collided in Colorado from 1861 to 1865, and Coloradans are still dealing with the consequences. Explore the daily life of the Colorado 1st Infantry and the "Bloodless" 3rd Colorado Cavalry, and visit the sites of the Sand Creek massacre, Fort Lyons, and Bent's Old Fort.

JUST BUTTING HEADS? BIGHORN SHEEP & MOUNTAIN GOATS (K-12)

CT-0757-22F
1 semester credit hour
Dates & Times:
October 29 (9:00am-5:00pm)
October 30 (9:00am-4:00pm)
Location: CSM campus, Golden
Instructor: Pam Batton
Tuition Fee: \$215 (**\$235 after October 13th**)

Discover why head butting is common among bighorn sheep and rare (but serious) among mountain goats. Learn about unique adaptations for survival in a rugged habitat. Hike into bighorn country as the mating season begins to observe their behavior. Learn why the mountain goat truly is a beast the color of winter.

RIVER OTTER...THEY'RE HERE IN COLORADO! (K-12)

CT-1923-22F
1 semester credit hour
Dates & Times:
November 5 (8:00am-5:00pm)
November 6 (10:00am-4:00pm)
Location: CSM campus, Golden
Instructor: Pam Batton
Tuition Fee: \$245 (**\$275 after Oct. 20th**)

Indulge your fascination with otters as you learn about the biology of this active and amusing animal. Learn about otter re-introduction to Colorado and how to find them in the wild. Visit the Denver Aquarium for an otter meet and greet and curator's otter exhibit talk.

EARLY EXPLORERS OF THE ROCKY MOUNTAINS (K-12)

CT-0518-22F
1 semester credit hour
Dates & Times:
November 12 (9:00am-5:00pm)
November 13 (9:00am-4:00pm)
Location: CSM campus, Golden
Instructor: Trey Corkern
Tuition Fee: \$215 (**\$235 after Oct. 27th**)

Discover the history of soldiers, trappers. Priests, and spies in the Rocky Mountains. Use botany, zoology, cartography, journaling, geometry, and celestial navigation to keep up with the likes of Zebulon Pike, Father Escalante, and Kit Carson. Go home with field specimens.

CHILDREN'S LITERATURE AND THE SKILLS OF SURVIVAL (K-12)

CT-1804-22F

1 semester credit hour

Date & Time:

November 19 (9:00am-5:00pm)

November 20 (9:00am-4:00pm)

Location: CSM campus, Golden

Instructor: Trey Corkern

Tuition Fee: \$215 (**\$235 after Nov. 3rd**)

Become the hero of your own story as you learn the skill and techniques used by literary figures used to survive: botany (My Side of the Mountain), zoology (Julie of the Wolves), chemistry (Education of Little Tree), first aid (Little Britches), homesteading (Little House), agriculture (Green Book), engineering (Hunger Games), and more.

THE ANCIENT ONES: PRE-HISTORIC NATIVE AMERICANS IN COLORADO (K-12)

CT-1704-22F

1 semester credit hour

Dates: December 3-4

Time: 9:00am-4:30pm

Location: CSM campus, Golden

Instructor: Trey Corkern

Tuition Fee: \$215 (**\$235 after Nov. 17th**)

Discover the fascinating stories of the first Native Americans in Colorado. Discover how cultures used different strategies to adapt to Colorado's unforgiving landscaper. Practice your hand at hunting techniques, use hand drills to start fires, learn archeoastronomy, and create ceramics.

NATIVE AMERICAN GAMES AND TOYS (K-8)

CT-0104-22F

1 semester credit hour

Dates & Times:

December 10 (9:00am-5:00pm)

December 11 (9:00am-4:00pm)

Location: CSM campus, Golden

Instructor: Pam Batton

Tuition Fee: \$220 (**\$240 after Nov. 17th**)

Explore the games and toys of different indigenous people in this hands-on history class. Toys show relationships between regions and their natural resources. They also teach how and why those resources were utilized. Through play you'll discover that many of the toys and games also had other benefits, such as modeling of adult roles and physical conditioning. Make several toys and games to take back to your classroom. Great for indoor recess activities!

For additional information or for questions, contact:

**Pam Batton, 303/697-0327 or
pamsecoadventures@gmail.com**

**To register and pay via PayPal, go to
PamsEcoAdventures.com**

Cancellation & Refund Policy

If you notify us of a cancellation before the early registration deadline, we will refund your tuition less a \$30.00 cancellation fee. If you cancel after the early registration deadline, we will refund your tuition less a cancellation fee of \$40.00. If you cancel 48 hours before a class begins, we will refund half of your tuition. If you cancel 24 hours before a class begins or on the day of class or are a no-show to class, no refund will be offered. These fees also apply to class transfers.

Spring 2023 Course Preview

WHALE SHARKS, HUMPBACKS & GRAY WHALES (K-12)

CT-1538-23S
4 semester credit hours
Dates: February 18-26
Location: Cabo San Lucas, Mexico
Instructor: Melanie Phelps
Tuition Fee: \$2,975 (includes credit; does not include airfare)

Snorkel with whale sharks, the largest plankton eating fish. Experience Gray Whales in a bay where these magnificent mammals give birth, often swimming to the boats to be touched. Snorkel or dive near Cabo San Lucas to watch Humpback Whales playfully raising their young.

To register or for more information, contact:

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

SANDHILL CRANES, SAND DUNES & HOT SPRINGS (K-12)

CT-1502-23S
1 semester credit hour
Dates: March 4-5
Location: Alamosa
Instructor: Melanie Phelps
Tuition Fee: \$190 (includes entrance fees, credit)

View flocks of the 20,000 majestic Sandhill Cranes as they migrate through the wetlands near Alamosa. Hear their bugling mating call and watch their graceful mating dance. Learn about efforts to save the Whooping Crane and see many wetland birds. Learn the geology and tour the Sand Dunes and the Rio Grande Rift Zone.

To register or for more information, contact:

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

HAWAII: VOLCANOES & CORAL REEFS (K-12)

CT-0906-23S
4 semester credit hours
Dates: March 18-26
Location: Big Island of Hawaii
Instructor: Melanie Phelps
Tuition Fee: \$2775 (includes ground transportation, lodging, entrance fees, credit; does not include airfare)

Tiptoe around Kilauea's active volcano caldera. Step gently through a'a' and pahoehoe lava flows, gaze upon molten lava flowing to the sea, and then submerge into the shimmering brilliance of the coral reef extravagancia. Help conduct biodiversity and environmental impact research. Snorkel and dive experience not required.

To register or for more information, contact:

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

COLORADO HISTORY BY TRAIN: DENVER TO GLENWOOD (K-12)

CT-1303-23S
1 semester credit hour
Dates: April 8-9
Location: Denver to Glenwood Springs
Instructor: Melanie Phelps
Tuition Fee: \$510 (includes train fare, lodging, tours, credit)

Ride one of the last passenger trains in America, the Amtrak, from Denver through the historic Moffat Tunnel, Winter Park, Gore Canyon, and into Glenwood Springs. Explore the caverns of Glenwood with the Tram and Cave Tour. Soak in the soothing waters the Ute Indians believed had magical powers. Learn the history of Colorado railroads and how the West was tamed.

To register or for more information, contact:

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

PICKETWIRE DINOSAUR TRACKS BY MOUNTAIN BIKE (K-12)

CT-0350-23S
1 semester credit hour
Dates: May 6-7
Time: 8:00am-5:00pm
Location: LaJunta
Instructor: Melanie Phelps
Tuition Fee: \$155 (includes credit)

Mountain bike 13-miles round trip to see a fossilized Jurassic beach containing over 1300 dinosaur tracks, some big enough to sit in. This important site showed scientists that dinosaurs were herding animals. Tour Old Bent's Fort and view stage coach ruts on the Old Stagecoach Trail. Learn Colorado history from the Jurassic to the Dust Bowl.

To register or for more information, contact:

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

Summer 2023 Course Preview

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

CT-1031-23D
1 semester credit hour
Dates: June 3-4
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 5-8
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

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

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 irreparably damaged by 2050. Visit, dive, snorkel, love and study this magical ecosystem before time runs out. 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

