

Teacher Enhancement Program for K-12 Educators

AT THE COLORADO SCHOOL OF MINES



FALL 2014

<http://te.csmspace.com>

COLORADO SCHOOL OF MINES

Teacher Enhancement Program

Fall 2014

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
1600 Jackson St., Suite 160A
Golden, CO 80401
(303) 277-8683 FAX
(303) 279-3855

Visit our home page at:
<http://te.csmspace.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. 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.

All courses offered in cooperation with the Extended Studies Program of the Colorado Commission on Higher Education

Fall Course Offerings

LONG'S PEAK UP CLOSE (K-12)

CT-1325-14F
0.5 semester credit hour
Date: September 6
Time: 7:00am-3:30pm
Location: Rocky Mtn. Conservancy, Estes Park
Instructors: Walter & Marlene Borneman
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$70

Have you ever wondered about those who explored and studied this unique and famous feature, or the character of Long's Peak itself? Spend a day connecting with its history, heritage, and folklore from geology to colorful characters.

To register or for more information, contact:

Rachel Balduzzi, Rocky Mtn. Conservancy
970/586-3262 or Rachel.balduzzi@rmna.org

TEACHING CONTROVERSIAL SCIENCE TOPICS (GR. 9-12)

CT-1450-14F
0.5 semester credit hour
Date: September 13
Time: 8:00am-5:00pm
Location: Univ. of Colorado, Boulder
Course Coordinator: Sierra Love Stowell
Tuition Fee: \$35 (**payable during workshop**)
Registration: pre-registration required

This workshop is designed to enhance the education of controversial topics such as evolution and climate change in Colorado high schools by providing you with information and classroom activities based on real research. Scientists and educators from the University of Colorado and beyond will lead all modules.

To register or for more information, contact:

Sierra Love Stowell, Univ. of Colorado
303/748-1337 or cu.eeb.eoc@gmail.com

BIGHORN SHEEP: ECOLOGY & MANGEMENT (K-12)

CT-1456-14F
0.5 semester credit hour
Date: September 13
Time: 8:00am-5:00pm
Location: Rocky Mtn. Conservancy, Estes Park
Instructor: Jeff Connor
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$70

Learn the ecology of bighorn sheep, how to identify a ram from a ewe, a yearling or a lamb, and how to age sheep by the rings on their horns. Discuss how the sheep can live in such mountainous steep terrain, learn what they eat, and visit two mineral licks to learn why they are so important to the survival of the sheep.

To register or for more information, contact:

Rachel Balduzzi, Rocky Mtn. Conservancy
970/586-3262 or Rachel.balduzzi@rmna.org

HISTORY OF FISHERIES IN RMNP (K-12)

CT-1455-14F
0.5 semester credit hour
Date: September 15
Time: 8:30am-4:30pm
Location: Rocky Mtn. Conservancy, Estes Park
Instructor: Chris Kennedy
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$70

Learn the difference between the historic condition when the first white settlers entered the area and conditions in what is now RMNP. Discuss current cutthroat trout management and recent research on cutthroat trout taxonomy. Travel to sites important in the history of the fisheries and view an electrofishing demonstration.

To register or for more information, contact:

Rachel Balduzzi, Rocky Mtn. Conservancy
970/586-3262 or Rachel.balduzzi@rmna.org

MAN AND NATURE IN THE FOUR CORNERS (GR 6-12)

CT-1454-14F
1 semester credit hour
Dates & Time:
6:00pm, September 26 through 1:00pm, September 28
Locations: Mancos/Durango
Course Coordinator: Mile Sipes
Tuition Fee: \$50 (**payable during trip**)
Registration Fee: \$100 (includes lodging & food)

Visit a land that has been continuously occupied by humans for over 10,000 years. Villages built of stone by the "ancient ones," have remained through the ages, and plants and animals have endured a hostile environment throughout the centuries. This land is the Four Corner Region, the only place in the U.S. where four states come together to form a common point.

To register or for more information, contact:

Mike Sipes, 303/237-4975
mpsipes@centurylink.net

THE WORLD OF WAPITI: ROCKY MOUNTAIN ELK (K-12)

CT-1252-14F
0.5 semester credit hour
Date: September 28
Time: 12:00-8:00pm
Location: Rocky Mtn. Conservancy, Estes Park
Instructor: Mel Cundiff
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$70

Experience the unique courtship rituals of the Rocky Mountain Elk while learning about their ecology. Study their origin, natural history, life cycle, and behavior. Experience the rut and rutting behaviors of these magnificent animals in Rocky Mountain National Park.

To register or for more information, contact:

Rachel Balduzzi, Rocky Mtn. Conservancy
970/586-3262 or Rachel.balduzzi@rmna.org

GEOLOGY & HISTORY OF THE CRIPPLE CREEK MINING DISTRICT (K-12)

CT-1232-14F
0.5 semester credit hour
Date: October 4
Time: 8:30am-5:00pm
Location: Cripple Creek Parks & Rec.
Instructor: Steven Veatch
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$25 (includes transportation & snacks)

The Cripple Creek Mining District is one of the most interesting geologic regions in the country. Enjoy lively discussions as you discover the District's remarkable modern and historic mining operations. Learn about the geology and rich mining history of the area, and spend part of the day exploring current mining operations of the Cripple Creek and Victor Gold Mining Company.

To register or for more information, contact:
Cripple Creek Parks and Recreation
719/689-3514

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

CT-1165-14F
1 semester credit hour
Dates: October 4-5
Time: 8:00am-5:00pm
Locations: Fairplay, Alma
Instructor: Melanie Phelps
Tuition Fee: \$140

Capture gold fever as you explore mines, mills, and ghost towns near Fairplay. Creep softly through Alma's past looking for the legendary Silver Heels, trek through twisted rails in Leavick, and let the timberline mines and 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

INTRO TO PLANT PHENOLOGY & CLIMATE CHANGE THROUGH PROJECT BUBBURST ONLINE (K-12)

CT-1213-14F
2 semester credit hours
Dates: October 7-November 7
Instructor: Dennis Ward
Tuition Fee: \$90 (**payable during workshop**)
Registration Fee: \$35

Obtain detailed information on Project BudBurst (a plant-based citizen science program). Learn how to select your plants and make observations, get suggestions for structuring your classroom involvement, receive activities to engage your students in making observations and analyzing data, as well as forming a community with other educators.

To register or for more information, contact:
Dennis Ward, NEON
720/746-4924, dward@neoninc.org

USING PROJECT BUDBURST DATA ONLINE (K-12)

CT-1274-14F
2 semester credit hours
Dates: October 7-November 7
Instructor: Dennis Ward
Tuition Fee: \$90 (**payable during workshop**)
Registration Fee: \$35

Discover an exciting new set of online data visualization tools developed by the National Geographic FieldScope program. Cover plant adaptations to a changing climate, and links between Project BudBurst data and other broad scale data sets.

To register or for more information, contact:
Dennis Ward, NEON
720/746-4924 or dward@neoninc.org

INTRODUCTION TO CITIZEN SCIENCE ONLINE (K-12)

CT-1430-14F
2 semester credit hours
Dates: October 7-November 7
Instructor: Dennis Ward
Tuition Fee: \$90 (**payable during workshop**)
Registration Fee: \$35

Receive an overview of citizen science, highlighting several existing programs that are targeted towards educators. Explore each of these programs, including how to participate, suggestions for structuring your involvement, education activities to engage your students, as well as forming a community with other educators.

To register or for more information, contact:
Dennis Ward, NEON
720/746-4924 or dward@neoninc.org

THE MAJESTIC SANGRE DE CRISTOS: GHOST TOWNS AND GEOLOGY (K-12)

CT-1077-14F
1 semester credit hour
Dates: October 11-12
Time: 8:00am-5:00pm
Location: Westcliffe
Instructor: Melanie Phelps
Tuition Fee: \$140

The Sangre de Cristos tower above the Wet Mountain Valley, hiding secrets of gold, silver, volcanoes, and ghost towns amid some of the most spectacular geology in Colorado. Explore a hill that was 97% silver and learn the lives of the people who mined it. Discover evidence for the Ancestral Rockies, the Rio Grande Rift, an ancient volcano, and the immense beauty of the Sangre de Cristo Mountains.

To register or for more information, contact:
Melanie Phelps, 719/252-1789
melaniephe@aol.com
www.coloradorivertrip.com

EXPLORING COLORADO ECOSYSTEMS (K-12)

CT-1453-14F

0.5 semester credit hour

Date: November 1

Time: 8:00am-5:00pm

Location Butterfly Pavilion, Westminster

Instructor: Marissa Copan

Tuition Fee: \$35 (**payable during workshop**)

Registration Fee: \$45

Explore one of the best teaching tools available - the ecosystem. Join this hands-on Colorado ecosystem workshop to learn about our native short-grass prairie. Engage in research, study the biodiversity of plant/animal life on our nature trail, and build lessons for your students.

To register or for more information, contact:

Marissa Copan, 720/974-1877

mcopan@butterflies.org

EcoAdventure Course Offerings

Note: Register for EcoAdventure courses through EcoAdventures. See box below.

ELK BUGLING (K-12)

CT-95105-14F
1 semester credit hour
Dates: September 20-21
Time: 12:00pm-7:30pm
Location: EcoAdventures, Morrison
Instructor: Pam Batton
Tuition Fee: \$140 (**\$160 after Sept. 4th**)

Observe and listen to the bull elk bugling during the mating season. Explore adaptations, behavior, 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-1101-14F
1 semester credit hour
Dates & Times:
October 4 (9:00am-5:00pm)
October 5 (9:00am-4:00pm)
Location: CSM campus, Golden
Instructor: Trey Corkern
Tuition Fee: \$140 (**\$160 after September 18th**)

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. Try your hand at pickling, weaving, blacksmithing, and more.

WILD CANINES OF COLORADO (K-12)

CT-9617-14F
1 semester credit hour
Dates & Times:
October 18 (8:00am-5:00pm)
October 19 (7:30am-2:00pm)
Location: EcoAdventures, Morrison
Tuition Fee: \$155 (**\$175 after October 2nd**)

Discover the mischievous coyote, the cat-like canine, red fox, the extirpated wolf, and others. Learn each animal's natural history through hands-on activities and field observation during hikes. Supplement any animal study/ecology curriculum with class topics such as habitat, predator/prey relationships, and populations.

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

CT-0757-14F
1 semester credit hour
Dates & Times:
November 8 (9:00am-5:00pm)
November 9 (9:00am-4:00pm)
Location: CSM campus, Golden
Tuition Fee: \$140 (**\$160 after October 23rd**)

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.

PUTTING THE COLOR BACK INTO COLORADO – A HISTORY OF MINORITIES IN THE ROCKIES (K-12)

CT-0122-14F
1 semester credit hour
Dates & Times:
November 15 (9:00am-5:00pm)
November 16 (9:00am-4:00pm)
Location: CSM campus, Golden
Instructor: Trey Corkern
Tuition Fee: \$140 (**\$160 after October 30th**)

Examine the other histories that made Colorado: female doctors, African businessmen, Mexican buffalo hunters, Shoshone trappers, geriatric labor leaders, and Comanche traders. Make butter, throw a lariat, and try your hand at tin-smithing.

WILD ABOUT WILDLIFE CRAFTS & LITERATURE (K-6)

CT-9860-14F
1 semester credit hour
Dates & Times:
December 6 (9:00am-5:00pm)
December 7 (9:00am-4:00pm)
Location: CSM campus, Golden
Tuition Fee: \$145 (**\$165 after Nov. 20th**)

Discover some of Colorado's wildlife through crafts, activities, children's literature, and short field trips. Create a craft for each of these species and learn their natural history: cottontail rabbit, Canada goose, red-tailed hawk, porcupine, deer mouse, grasshopper, and spider. Bring a favorite wildlife craft to share.

To register for any EcoAdventures course, mail the CSM enrollment form along with a check payable to EcoAdventures to:

**Pam Batton
EcoAdventures
5894 South Meadow Drive
Morrison, CO 80465
303/697-0327
Fax 303/697-0329
Pamsecoadventures.com**

Registration/Cancellation/Refund Policy

If payments have not been received by the registration deadline (2 ½ weeks before the class), EcoAdventures reserves the right to charge a late registration fee of \$10.00 or delete you from the class and allow a person from the waiting list to take your spot.

If you notify us of a cancellation before the registration deadline, we will refund your tuition less a \$25.00 cancellation fee. If you cancel after the registration deadline, we will refund your tuition less a cancellation fee of \$35.00. 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.

Project WILD - Project Learning Tree - Project WET

Projects WILD and Learning Tree are supplemental, interdisciplinary environmental education programs emphasizing wildlife, forest and water resources, and our interdependence with the natural world. Using hands-on activities that create awareness, appreciation, understanding, skills and commitment, you and your students learn to address environmental issues within the framework of your existing curriculum. You will receive activity guides, posters, prizes, and other supplemental materials.

All Project WILD and Learning Tree PreK-12 activities have been correlated to the Colorado Model Content Standards for Science, Math, Geography, History, Reading and Writing. Spanish translations of activities are available for Project Learning Tree and Project WILD. New PLT materials are available for integrated middle and high school curricula.

Following is a list of upcoming workshops. **Pre-register by calling the person listed and sending in the non-refundable registration fee at least 7 days prior to the first day of the workshop (unless otherwise noted). Tuition will be due on the first day of the workshop. Please register through the person listed, not through the Colorado School of Mines.** Workshops may be cancelled one week before the start date if minimum enrollment numbers have not been met. Other dates may have been added; call for updated workshop listings.

PROJECT WET (K-12)

CT-9629-14F

0.5 semester credit hour

Date: November 22

Time: 9:00am-5:00pm

Location: Downtown Aquarium, Denver

Tuition Fee \$35 (**payable during workshop**)

Registration Fee: \$35

Project WET is a collection of innovative and water-related K-12 activities that are interdisciplinary, hands-on, and easy to use. These activities, taken from the Project WET Curriculum & Activity Guide, may focus on large and small group learning and laboratory investigations.

To register or for more information, contact:

Downtown Aquarium Sales & Service Center
303/561-4444

For updated information:

Project WILD, 303/291-7165

www.wildlife.state.co.us/Education

Project Learning Tree, 303/278-8822

www.coloradoplth.org

Spring 2015 Course Preview

GHOST TOWNS BY CROSS-COUNTRY SKI (K-12)

CT-0301-15S

1 semester credit hour

Dates: February 14-15

Time: 8:00am-5:00pm

Location: Leadville

Instructor: Melanie Phelps

Tuition Fee: \$140

Cross-country ski back in time to the days of the Colorado gold and silver rush. Relive the extravagance and demise of Baby Doe and Horace Tabor, and tour the Mining Museum and Healy House. Listen to the snow blowing softly among the ruins of Oro City and California Gulch. Cross-country skiing or snowshoeing experience not required.

To register or for more information, contact:

Melanie Phelps, 719/252-1789

melaniephe@aol.com

www.coloradorivertrip.com

LONDON: A ROYAL EXPERIENCE (K-12)

CT-1501-15S

4 semester credit hours

Dates: March 21-29

Locations: London

Instructor: Joyce Webb

Tuition Fee: \$2,970 (includes airfare, lodging, ground transportation, tours, credit)

Experience the Tower of London, see the crown jewels, hear the chimes of Big Ben, hobnob with the tombstones of Westminster Abbey, and visit the National Gallery with priceless works of art. Travel to Windsor Castle, and spend a day visiting Bath the mystery of Stonehenge.

To register or for more information, contact:

Joyce Webb, 719/229-5482

joycewebb@ymail.com

www.coloradorivertrip.com

HAWAII: VOLCANOES & CORAL REEFS (K-12)

CT-0906-15S

4 semester credit hours

Dates: March 21-29

Location: Big Island of Hawaii

Instructor: Melanie Phelps

Tuition Fee: \$2,470 (includes ground transportation, lodging, entrance fees, credit)

Explore Hawaii's Big Island – the newest land on earth. Tiptoe across Kilauea's active volcano caldera; step gently through aa and pahoehoe lava flows; and gaze upon molten lava flowing to the sea. Submerge into the shimmering brilliance of coral reef life to conduct biodiversity and environmental impact research.

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-1303-15S

1 semester credit hour

Dates: April 25-26

Location: Denver to Glenwood Springs

Instructor: Melanie Phelps

Tuition Fee: \$470 (includes train fare, lodging, tours, credit)

Ride Amtrak from Denver through the historic Moffat Tunnel, Winter Park, Gore Canyon, and into Glenwood Springs. Explore caves and 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-0350-15S

1 semester credit hour

Dates: May 9-10

Time: 8:00am-5:00pm

Location: LaJunta

Instructor: Melanie Phelps

Tuition Fee: \$140

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

Course Enrollment Form

Please Print

Full Name: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Social Security Number*: _____ Date of Birth: _____

Telephone: (school) _____ (home) _____

School: _____ Grade Level: _____

Email: _____

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

o E-mail: _____

o Fax; fax number: () _____

oMail

***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 class(es) 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. Many, but not all, listings will direct you to fill out the form above 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.

Make checks payable to CSM Office of Continuing Education unless otherwise noted.

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

CSM Teacher Enhancement Program

1600 Jackson St., Suite 160A

Golden, CO 80401

FAX: (303) 277-8683

Phone: (303) 279-3855

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