

Teacher Enhancement Program for K-12 Educators

AT THE COLORADO SCHOOL OF MINES



FALL 2018

<http://te.csmspace.com>

COLORADO SCHOOL OF MINES

Teacher Enhancement Program

Fall 2018

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 190
Golden, CO 80401
(303) 384-2695 FAX
(303) 384-2692

Visit our home page at
<http://te.csmspace.com> for the
most updated 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.

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

Fall Course Offerings

PERSEVERING PIKA: SECRETS OF ALPINE SURVIVAL (K-12)

CT-1534-18F

0.5 semester credit hour

Date: September 1

Time: 8:30am-5:00pm

Location: Rocky Mtn. Conservancy, Estes Park

Instructor: Chris Ray

Tuition Fee: \$40 (**payable during workshop**)

Registration Fee: \$80

Have you ever wondered how non-hibernating animals like yourself might fare trying to survive in the alpine year-round? Watch the American pika demonstrate its survival strategy. Pikas and their hibernating neighbors, yellow-bellied marmots, chipmunks, and squirrels, are easy to watch in the summer and fall as they forage among the alpine wildflowers. Learn how to spot different animals behaviors that provide clues to how each survives the long, cold winter.

To register or for more information, contact:

Rachel Balduzzi, Rocky Mtn. Conservancy

970/586-3262 or

Rachel.balduzzi@rmconservancy.org

TEACHING CONTROVERSIAL SCIENCE TOPICS (GR. 9-12)

CT-1831-18F

0.5 semester credit hour

Date: September 8

Time: 8:00am-5:00pm

Location: Univ. of Colorado, Boulder

Course Coordinator: Hannah Holland-Moritz

Tuition Fee: \$40 (**payable during workshop**)

Registration: pre-registration required

Enhance your 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:

Hannah Holland-Moritz, Univ. of Colorado

303/748-1337 or cu.eeb.eoc@gmail.com

INTRODUCTION TO CITIZEN SCIENCE ONLINE (K-12)

CT-1430-18F

2 semester credit hours

Dates: October 12-November 12

Instructors: H. Jean Bryan, Jessamine Finch

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

Registration Fee: \$70

Highlight several existing citizen science programs that are targeted towards educators. Explore these programs, including how to participate, suggestions for structuring your class involvement, and identifying activities to engage your students, as well as forming a community with other educators.

To register or for more information:

H. Jean Bryan, 847/835-6945 or

jbryan@chicagobotanic.org

EcoAdventure Course Offerings

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

BACK IN BLACK - RAVENS, CROWS, AND MAGPIES (K-12)

CT-0463-18F

1 semester credit hour

Dates & Times:

September 15 (12:00-7:00pm)

September 16 (7:30am-3:30pm)

Location: EcoAdventures, Morrison

Instructor: Pam Batton

Tuition Fee: \$160 (**\$180 after Aug. 30th**)

Ravens, crows, magpies, and jays form the Corvid family. They are intelligent, social, curious, and one of the most adaptable bird species on earth. Their success is noted in cultural folklore and history. Discover the natural and cultural history of these remarkable birds through hands-on activities and outdoor treks.

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

CT-1101-18F

1 semester credit hour

Dates & Times:

October 6 (9:00am-5:00pm)

October 7 (9:00am-4:00pm)

Location: CSM campus, Golden

Instructor: Trey Corkern

Tuition Fee: \$160 (**\$180 after September 20th**)

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.

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

CT-1719-18F

1 semester credit hour

Dates & Times:

October 20 (9:00am-5:00pm)

October 21 (9:00am-4:00pm)

Location: LaJunta, CO

Instructor: Trey Corkern

Tuition Fee: \$165 (**\$185 after Oct. 4th**)

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-0757-18F

1 semester credit hour

Dates & Times:

November 3 (9:00am-5:00pm)

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

Location: CSM campus, Golden

Instructor: Pam Batton

Tuition Fee: \$160 (**\$180 after October 18th**)

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-0122-18F

1 semester credit hour

Dates & Times:

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

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

Location: CSM campus, Golden

Instructor: Trey Corkern

Tuition Fee: \$160 (**\$180 after October 25th**)

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.

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.

Spring 2019 Course Preview

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

CT-1538-19S
4 semester credit hours
Dates: February 16-24
Location: Baja Peninsula, Mexico
Instructor: Melanie Phelps
Tuition Fee: \$2,575 (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-1502-19S
1 semester credit hour
Dates: March 2-3
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 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

COSTA RICA: TROPICAL RAINFOREST LEGEND (K-12)

CT-1701-19S
4 semester credit hours
Dates: March 23-31
Location: Costa Rica, Central America
Instructor: Melanie Phelps
Tuition Fee: \$2,475 (includes lodging, ground transportation, tours, credit)

Journey to the birding, mammal, and beach capital of Meso-America. Awaken to the calls of Howler and Capuchin Monkeys and 830 species of birds. Explore Monteverde Cloud Forest, LaSelva Research Station, Palo Verde, and Manuel Antonio National Parks. Study the geology and ecology of this narrow land bridge between continents as you explore the Legend of Biodiversity.

To register or for more information, contact:

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

MUSEUMS OF PARIS (K-12)

CT-04132-19S
4 semester credit hours
Dates: March 23-31
Locations: Paris
Instructor: Joyce Webb
Tuition Fee: \$3,670 (includes airfare, lodging, ground transportation, tours, credit)

Visit the Louvre, Orsay, Rodin, and Picasso Museums plus 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. Join us and help 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

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

CT-1303-19S
1 semester credit hour
Dates: April 13-14
Location: Denver to Glenwood Springs
Instructor: Melanie Phelps
Tuition Fee: \$490 (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 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-0350-19S
1 semester credit hour
Dates: May 4-5
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 2019 Course Preview

SPAIN: HISTORY OF CRUSADERS AND KINGS

(K-12)

CT-1201-19D

4 semester credit hours

Dates: May 30-June 14

Locations: Spain

Instructor: Joyce Webb

Tuition Fee: \$3,670 (includes airfare, lodging, ground transportation, tours, credit)

Experience Spain from the art and architecture of Madrid to Sevilla's Alcazar, Christopher Columbus' tomb, and the romance of Flamenco dancers. Visit the Rock of Gibraltar and take a day trip to the mysterious Tangiers on Africa's Moroccan coast. Wander Granada's grand Alhambra while learning of Spain's tangled history.

To register or for more information, contact:

Joyce Webb, 719/229-5482

joycewebb@ymail.com

www.coloradorivertrip.com

CLIFF DWELLINGS AND VOLCANOES OF NEW

MEXICO (K-12)

CT-1031-19D

1 semester credit hour

Dates: June 1-2

Location: meet in Pueblo; drive to NM

Instructor: Melanie Phelps

Tuition Fee: \$155

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 is 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-1402-19D

2 semester credit hours

Dates: June 3-6

Location: meet in Santa Fe, NM

Instructor: Melanie Phelps

Tuition Fee: \$335 (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 to 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

ALASKA: GLACIERS, GOLD, AND GRIZZLIES

(K-12)

CT-1304-19D

6 semester credit hours

Dates: June 7-21

Location: Alaska

Instructor: Melanie Phelps

Tuition Fee: \$5,705 (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. Price may vary slightly based upon air and ferry fares.

To register or for more information, contact:

Melanie Phelps, 719/252-1789

melaniephe@aol.com

www.coloradorivertrip.com

NORWAY: LAND OF GLACIER-BORN FJORDS

(K-12)

CT-1833-19D

4 semester credit hours

Dates: June 16-24

Locations: Norway

Instructor: Joyce Webb

Tuition Fee: \$4,600 (includes airfare, lodging, ground transportation, tours, credit)

Start in Oslo with visits to the Viking Museum, Frogner Park, and the Nobel Peace Center. Take the magnificent train ride to Flam to experience a fjord cruise on a finger of Norway's longest and deepest fjord, Sognefjord, before heading to Bergen, a UNESCO sight.

To register or for more information, contact:

Joyce Webb, 719/229-5482

joycewebb@ymail.com

www.coloradorivertrip.com

IRELAND: HAUNTED BY HISTORY AND RICH IN LEGENDS (K-12)

CT-0419-19M

4 semester credit hours

Dates: June 25-July 5

Location: Ireland

Instructor: Joyce Webb

Tuition Fee: \$2,075 (includes lodging, ground transportation, tours, credit)

Experience the unpretentious simplicity of Ireland. Tour the southwestern Emerald Isle from castles to peat bogs, and explore the famous Aran Islands, the Burrens, and the Gaelic-speaking Dingle Peninsula. Kiss the Blarney Stone and climb the Rock of Cashel.

To register or for more information, contact:

Joyce Webb, 719/229-5482

joycewebb@ymail.com

www.coloradorivertrip.com

BLACK HILLS: MAMMOTHS, MONUMENTS, AND WARS (K-12)

CT-1428-19M

2 semester credit hours

Dates: June 28-July 2

Location: meet in Scotts Bluff, NE

Instructor: Melanie Phelps

Tuition Fee: \$420 (includes entrance fees and tuition)

Retrace the Oregon Trail near Scotts Bluff, Nebraska. Explore giant land mammals at Agate Fossil Beds, and solve the ancient mystery of an ancient bog where only male mammoths died. Discover the wonders of South Dakota: Custer State Park, Badlands, Mt. Rushmore, Crazy Horse, and The Little Bighorn, then wind your way through caves, and discover the secrets of Black Hills gold. In Wyoming, tour a bison cliff kill site, and the giant columns of Devil's Tower.

To register or for more information, contact:

Melanie Phelps, 719/252-1789

melaniephe@aol.com

www.coloradorivertrip.com

IRELAND II: DAWNING OF A NEW DAY (K-12)

CT-0905-19M

4 semester credit hours

Dates: July 5-13

Location: Ireland

Instructor: Joyce Webb

Tuition Fee: \$2,100 (includes lodging, ground transportation, tours, credit)

Tour Dublin, Belfast, and the east coast of Ireland. Discover the past as you gaze upon the Book of Kells, explore the tomb of Newgrange, and wander through the 6th century monastery of Monasterbolce. Visit Trim Castle and explore the volcanic columns of the Giant's Causeway. The past and present become blended into another Irish adventure.

To register or for more information, contact:

Joyce Webb, 719/229-5482

joycewebb@ymail.com

www.coloradorivertrip.com

AUSTRALIA: REEFS AND RAINFORESTS DOWN UNDER (K-12)

CT-0606-19M

6 semester credit hours

Dates: July 5-26

Location: Australia

Instructor: Melanie Phelps

Tuition Fee: \$3,955 (includes lodging, ground transportation, tuition)

Tiptoe through the ancient rainforest in search of the elusive cassowary; snorkel or dive beneath the crystal waters of the Great Barrier Reef; sojourn to the Outback to glimpse the Red Kangaroos; and camp on a secluded coral and mangrove island. Fly to Uluru to hike and explore the outback around Ayer's Rock and the Olga Mountains.

To register or for more information, contact:

Melanie Phelps, 719/252-1789

melaniephe@aol.com

www.coloradorivertrip.com

SCOTLAND: THE HIGHLANDS OF GLADES AND LOCHS (K-12)

CT-0706-19M

4 semester credit hours

Dates: July 13-21

Location: Scotland

Instructor: Joyce Webb

Tuition Fee: \$2,475 (includes lodging, ground transportation, tours, credit)

Journey along mossy mountains, salty isles, and bottomless lochs. Taste haggis, hear bagpipes, and feel the winds of history blowing through the glens. Go time tripping through stone castles, and savor the pristine atmosphere of the Hebrides Islands. Wander with us and scan Loch Ness for legendary monsters.

To register or for more information, contact:

Joyce Webb, 719/229-5482

joycewebb@ymail.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 190

Golden, CO 80401

FAX: (303) 384-2695

Phone: (303) 384-2692

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