Teacher Enhancement Program for K-12 Educators
At the Colorado School of Mines
SUMMER 2019
http://te.csm.space.com
COLORADO SCHOOL OF MINES
Teacher Enhancement Program
Summer 2019

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
1600 Jackson St., Ste. 190
Golden, CO 80401-0028
(303) 384-2692

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.csmspace.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 2019 Course Offerings

**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

**PRINCIPLES AND FOUNDATIONS FOR ENVIRONMENTAL EDUCATION ONLINE (K-12)**
CT-1216-19M
2 semester credit hours
Dates: June 3-August 11
Instructor: Katie Navin
Tuition Fee: $95 (**payable during workshop**)
Registration Fee: $135 CAEE members, $175 non-members

Explore the history and goals of environmental education; develop an understanding of the professional roles and instructional methods of environmental educators; and interact with other educators online. Become eligible to submit your work for certification in CAEE’s certification program for a discount. Register at www.caee.org.

**To register or for more information, contact:**
Katie Navin, CAEE
303/273-9527, director@caee.org

**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

**ROCKS AND MINERALS (K-12)**
CT-9666-19D
1 semester credit hour
Dates: June 4-5
Time: 8:00am-5:00pm
Location: CSM campus, Golden
Instructors: Pete Modreski, Jane Dianich
Tuition Fee: $110

Learn or review the basics of rocks and minerals in dynamic and interactive ways in order to engage your students to learn about them. Examine specimens, do activities, and tour the CSM Geology Museum. See complementary “Walking Tour of Building Stones” field course below.

**To register, mail the enrollment form and full tuition amount to the CSM Teacher Enhancement Office.**

**WASTEWATER AND RENEWABLE RESOURCES (K-12)**
CT-1215-19D
0.5 semester credit hour
Date: June 5
Time: 8:00am-5:00pm
Location: Metro Wastewater Reclamation District, Denver
Instructor: Orren West
Course Coordinator: Kelley Merritt
Tuition Fee: no charge (you must pre-register)

Learn the science behind wastewater treatment. Highlight the biosolids management process, including land application of solid materials and the production of electricity. Tour the 52,000 acre METROGRO Farm, a wastewater treatment facility, and the on-site working laboratory.

**To register or for more information, contact:**
Kelley Merritt
Metro Wastewater Reclamation District
303/286-3455 or kmerritt@mwrdr.dst.co.us
WALKING TOUR OF BUILDING STONES IN DENVER (K-12)
CT-04131-19D
0.5 semester credit hour
Date: June 6
Time: 8:30am-5:00pm
Location: Downtown Denver
Instructors: Pete Modreski, Jane Dianich
Tuition Fee: $80

Learn about rocks and geology as you tour historic Denver buildings in the vicinity of the State Capitol, Denver City and County Building, and the 16th Street Mall. Receive a copy of a field guide written specifically for school groups. See the complementary “Rocks and Minerals” class above.

To register, mail the enrollment form and full tuition amount to the CSM Teacher Enhancement Office.

BEYOND THE CLASSROOM: AQUATIC ECOCY
RESEARCH & ENVIRONMENTAL ISSUES
(GR. 4-12)
CT-1742-19D
1 semester credit hour
Dates & Times:
June 6 (7:30am-8:00pm) & June 7 (7:30am-4:00pm)
Location: Keystone Science School
Instructors: Jillian Somero, Carrie Scheick
Course Coordinator: Christina Wheeler
Tuition Fee: $55 (payable during workshop)
Registration Fee: $50 (includes meals, housing, materials)

Receive all the tools necessary to facilitate a complete unit on environmental issues within a traditional classroom. The lessons from the workshop can form a stand-alone unit or supplement a Keystone Science School overnight field trip. Our unbiased framework allows you to explore challenging topics, such as climate science and how it relates to ecology, while learning about all perspectives of an issue. We will be using the topic of water in the West to explore environmental issues but the lessons we present will be adaptable to any local, regional, or global issue. Curriculum can be adapted for younger students.

To register or for more information, contact:
Christina Wheeler, Keystone Science School
970/368-4082
cwheeler@keystonescienceschool.org

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

CUBA: ITS COUNTRY, CULTURE, AND PEOPLE
(K-12)
CT-1718-19D
3 semester credit hours
Dates: June 9-16
Location: Havana & Pinar del Rio, Cuba
Instructor: Elena Sodano, 303/204-8470 or sodano@mac.com
Tuition Fee: $135 (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. The State Department's new restrictions on travel to Cuba does not impact this educational trip in any manner.

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

ALL ABOUT MINING HYBRID COURSE (K-12)
CT-5700-19D
6 semester credit hours
Dates: June 13-21
Time: 8:00am-mid/late afternoon (except on full-day field trips)
Location: online, CSM campus, and field trips
Instructors: various speakers
Course Coordinator: Shannon Mann, 720/250-6635
Tuition Fee: $300

Gain a detailed overview of America's modern mining industry, answering important questions such as: What does the mining industry really do? How does the mining industry function? Why is mining important to America's society? Visit the website for more information on course requirements.

To register or for more information, contact:
CMA Education Foundation, Inc.
303/575-9199, coordinator@allaboutmining.org
www.allaboutmining.org
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

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

BUDBURST NATIVARS FOR EDUCATORS (GR. 4-12)
CT-1920-19M
1 semester credit hour
Dates: June 28-July 14
Instructors: H. Jean Bryan, Jessa Finch
Tuition Fee: $55 (payable during workshop)
Registration Fee: $60

Engage your learners in both pollinator count data collection in the field and data analysis. The Budburst Nativars project contributes data to a national research project aimed at answering a critical question in pollinator conservation. This online course covers basic plant phonology, pollinator biology, how to find or plant a Nativar Research Garden, and the protocols for making and reporting weekly pollinator observations. In addition receive additional classroom activities to support implementation in your unique educational setting.

To register or for more information, contact:
Jessa Finch, Chicago Botanic Garden
847/835-6945 or jfinch@chicagobotanic.org

USING CITIZEN SCIENCE DATA IN THE CLASSROOM ONLINE (GR. 6-12)
CT-1620-19M
2 semester credit hours
Dates: June 28-July 28
Instructors: H. Jean Bryan, Jessa Finch
Tuition Fee: $95 (payable during workshop)
Registration Fee: $70

New to integrating data collection, manipulation, and display as part of your citizen science related instructional activities? This course will provide a good starting place. This course assumes a basic familiarity with the concept of citizen science and direct experience with, or participation in, at least one citizen science project. Projects highlighted in this course include Budburst, eBird, GroWatch, Picture Post, and CoCoRaHS.

To register or for more information, contact:
Jessa Finch, Chicago Botanic Garden
847/835-6945 or jfinch@chicagobotanic.org
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 Monasterboice. 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

DINOSAUR RIDGE TEACHERS’ WORKSHOP (K-12)
CT-9206-19M
1 semester credit hour
Dates: July 9-10
Time: 8:30am-5:00pm
Location: Dinosaur Ridge Discovery Center, Morrison
Instructors: Pete Modreski, Norb Cygan
Tuition Fee: $125

Experience an in-depth orientation to the dinosaur bones and tracks found on Dinosaur Ridge near Morrison, and learn how to use them as a resource for teaching. Visit the Trek Through Time Learning Center, the Morrison Natural History Museum, and the Triceratops Trail interpretive site in Golden.

To register, mail the enrollment form and full tuition amount to the CSM Teacher Enhancement Office.

CRESTED BUTTE: WET WILD WEST (K-12)
CT-1921-19M
1 semester credit hour
Dates & Times:
July 9 (8:00am-5:00pm)
July 10 (8:00am-3:00pm)
Locations: Crested Butte & Gunnison areas
Instructor: Tonya MacKendrick
Tuition Fee: $55 (payable during workshop)
Registration Fee: $190 (meals, lodging, and transportation on your own)

Explore the awesome wet and wild natural and human history of the Crested Butte area. Spend time at the Rocky Mountain Biological Laboratory in Gothic and learn about wildflowers and the mining history of Crested Butte. Finally, learn about the power and importance of water as you raft down the Taylor River.

To register or for more information, contact:
Tonya MacKendrick, 970/216-2326
tmackendrick530@gmail.com
www.wcoloradohistoricadventures.weebly.com

MINING AND MURDER: COLORFUL HISTORY OF LAKE CITY & CREED (K-12)
CT-1618-19M
1 semester credit hour
Dates & Times:
July 11 (7:30am-5:00pm)
July 12 (7:30am-3:00pm)
Locations: Lake City & Creede
Instructor: Tonya MacKendrick
Tuition Fee: $55 (payable during workshop)
Registration Fee: $175 (meals, lodging, and transportation on your own)

Step back in time in Colorado’s past when legends were made and mining reigned supreme. Enjoy a guided 4wd jeep tour into the heart of the San Juans starting in Lake City and learn about Colorado’s most famous cannibal. Then take in Creede’s rich silver history by touring a mining museum, attending the historic Creede Theater, and visit ghost towns and structures of days long ago.

To register or for more information, contact:
Tonya MacKendrick, 970/216-2326
tmackendrick530@gmail.com
www.wcoloradohistoricadventures.weebly.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
YOUR HOME IS YOUR HABITAT (K-12)
CT-0296-19M
0.5 semester credit hour
Date: July 23
Time: 9:00am-5:00pm
Location: Downtown Aquarium, Denver
Course Coordinator: Colleen Shipley, 303/561-4565
Tuition Fee: $40 (payable during workshop)
Registration Fee: $75 (includes materials, snacks, admission & parking)

From mountains to reefs, beaver ponds and mangroves...how much do you and your students really know about these ecosystems near and far? Take an in-depth look at a variety of aquatic and terrestrial habitats while participating in cross-curricular activities that you can take back to your classroom. Take home a curriculum guide that includes background information in each habitat as well as standards-connected activities to use both in your classroom and during future visits to the Downtown Aquarium. Registrations close 2 weeks before the start of the course.

To register or for more information, contact:
Downtown Aquarium Sales & Service Center
303/561-4444

WASTEWATER AND AQUATIC BIOLOGY (K-12)
CT-1082-19M
0.5 semester credit hour
Date: July 24
Time: 8:00am-5:00pm
Location: Metro Wastewater Reclamation District, Denver
Instructor: Steve Lundt
Course Coordinator: Kelley Merritt
Tuition Fee: no charge (you must pre-register)

Receive an introduction to the science behind wastewater treatment. Learn about industry efforts to preserve, protect, and improve aquatic environments while protecting public health. Tour a wastewater treatment facility and a water quality laboratory.

To register or for more information, contact:
Kelley Merritt
Metro Wastewater Reclamation District
303/286-3455 or kmerritt@mwrld.dst.co.us

OCEAN LITERACY (K-12)
CT-0710-19M
0.5 semester credit hour
Date: July 25
Time: 9:00am-5:00pm
Location: Downtown Aquarium, Denver
Course Coordinator: Colleen Shipley, 303/561-4565
Tuition Fee: $40 (payable during workshop)
Registration Fee: $75 (includes materials during workshop)

Even though Colorado is not near an ocean, we are tied to it in many ways. Ocean literacy is an understanding of the ocean’s influence on you, and your influence on the ocean. Learn the 7 essential principles of ocean literacy through interactive lessons and visiting the Aquarium residents. Registrations close 2 weeks prior to the start date.

To register or for more information, contact:
Downtown Aquarium Sales & Service Center
303/561-4444

AQUARIUMS AND YOUR CLASSROOM (GR. 1-12)
CT-0259-19M
0.5 semester credit hour
Date: August 7
Time: 9:00am-5:00pm
Location: Downtown Aquarium, Denver
Course Coordinator: Colleen Shipley, 303/561-4565
Tuition Fee: $40 (payable during workshop)
Registration Fee: $75 (includes materials, snacks, admission & parking)

Learn and see how to do aquarium set-up, learn maintenance tips, and try out a variety of activities that you and your students can do with your classroom aquarium as well as with our million-gallon version. Receive an interdisciplinary curriculum guide, go on a behind-the-scenes tour, and meet staff to discuss aquarium careers. Bring the ocean to your classroom, and your class to the ocean, in Denver! Registrations close 2 weeks before the start of the course.

To register or for more information, contact:
Downtown Aquarium Sales & Service Center
303/561-4444
## EcoAdventure Course Offerings

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

### WILDFLOWERS OF THE ROCKIES (K-12)
- **CT-9613-19D**
- 1 semester credit hour
- **Dates & Times:**
  - June 8 (9:00am-5:00pm)
  - June 9 (9:00am-4:00pm)
- **Location:** EcoAdventures, Morrison
- **Instructor:** Pam Batton
- **Tuition Fee:** $165 ($185 after May 23rd)

Spend time in the wildflowers as you explore a variety of elevations and identify and discover interesting botanical facts, uses, myths and legends about wildflowers. Experience “botany in a bowl,” a creative activity to help kids understand the basics of botany.

### THE ANCIENT ONES: PRE-HISTORIC NATIVE AMERICANS IN COLORADO (K-12)
- **CT-1704-19D**
- 1 semester credit hour
- **Dates & Times:**
  - June 29 (9:00am-5:00pm)
  - June 30 (9:00am-4:00pm)
- **Location:** EcoAdventures, Morrison
- **Instructor:** Trey Corkern
- **Tuition Fee:** $165 ($185 after June 7th)

Discover the fascinating stories of the first Native Americans in Colorado. Discover how cultures used different strategies to adapt to Colorado’s unforgiving landscape. Try your hand at hunting techniques, hand drills to start fires, archeoastronomy, and ceramics.

### THE UTE - A NATIVE AMERICAN WAY OF LIFE IN THE ROCKIES (K-12)
- **CT-95106-19M**
- 1 semester credit hour
- **Dates & Times:**
  - July 8 (9:00am-5:00pm)
  - July 9 (9:00am-4:00pm)
- **Location:** EcoAdventures, Morrison
- **Instructor:** Pam Batton
- **Tuition Fee:** $165 ($185 after June 24th)

Discover the history of the people of the shining mountains - Ute. Get a campsite up and running; learn the basics of ancient skills used in everyday life; try your hand at fire building, cooking, sewing, beading, twining, tanning and flint knapping.

### SWEET WITH A STING: THE NATURAL HISTORY OF HONEYBEES (K-12)
- **CT-0519-19M**
- 1 semester credit hour
- **Dates:** July 23-24
- **Times:** 9:00am-5:00pm
- **Location:** EcoAdventures, Morrison
- **Instructor:** Pam Batton
- **Tuition Fee:** $165 ($185 after July 8th)

Peer into a glass hive and learn about the natural history of honeybees and their relatives. Examine the life cycle and jobs of a hive bee. Watch field bees in action as they pollinate flowers and do the “waggle dance.” Take a field trip to a bee yard to learn about a beekeeper’s daily activities.

### WILD CANINES OF COLORADO (K-12)
- **CT-9617-19M**
- 1 semester credit hour
- **Dates & Times:**
  - July 25 (8:00am-5:00pm)
  - July 26 (7:30am-2:00pm)
- **Location:** EcoAdventures, Morrison
- **Instructor:** Pam Batton
- **Tuition Fee:** $170 ($190 after July 8th)

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. Visit a wonderful wild canine refuge. Supplement any animal study/ecology curriculum with class topics such as habitat, predator/prey relationships, and populations.

### THE GHASTLY HISTORY OF MEDICINE (K-12)
- **CT-1909-19M**
- 1 semester credit hour
- **Dates & Times:**
  - July 27 (9:00am-5:00pm)
  - July 28 (9:00am-4:00pm)
- **Location:** EcoAdventures, Morrison
- **Instructor:** Trey Corkern
- **Tuition Fee:** $165 ($185 after July 8th)

Everyone gets ill, discover how people were able to cope with adversity throughout history. Try your hand at Greek surgical methods, making Egyptian topical medicines, building a Native American herbal kit, diagnosing a European plague, removing a bullet, treating scurvy, deliver a baby, and more.
TAMING THE FRONTIER: COLORADO’S PIONEERS AND HOMESTEADERS (K-12)
CT-1125-19M
1 semester credit hour
Dates & Times:
  August 3 (9:00am-5:00pm)
  August 4 (9:00am-4:00pm)
Location: EcoAdventures, Morrison
Instructor: Trey Corkern
Tuition Fee: $165 ($185 after July 22nd)

How did men, women, and children cross an ocean of prairie to build homes and communities? Make sausage, plant heirloom seeds, and make cheese. Learn how to shoe a horse, pack a wagon, and harness draft animals. Visit a working homestead.

To register, mail the CSM enrollment form along with a check payable to EcoAdventures to:
EcoAdventures
5894 South Meadow Drive
Morrison, CO  80465
303/697-0327, Fax 303/697-0329

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.
FEEDING COMMUNITIES: AN INTRODUCTION TO URBAN FARMING (K-12)

CT-1524-19M
1.5 semester credit hours
Dates: July 5, 12, 26
Time: 9:00am-5:00pm
Location: Denver Botanic Gardens
Instructor: Brien Darby
Tuition Fee: $85 (payable during workshop)
Registration Fee: $100 DBG member, $110 non-member

Learn the skills necessary to plan and manage an urban agricultural project ranging in size from a backyard garden to a multi-acre city lot. Receive lessons on design, soil prep, tool usage, seed starting, pest and diseases, harvesting, and next steps.

To register, visit
or contact DBG Resource Center, 720/865-3500
or registrar@botanicgardens.org
science in the early childhood classroom (prek-1)
CT-1827-19D
0.5 semester credit hour
Date: June 1
Time: 8:00am-4:30pm
Location: Denver Museum of Nature & Science
Instructor: Cybil Holmes
Tuition Fee: $35
Registration Fee: $75

What does science instruction look like for our youngest learners? Find out ways to incorporate problem based learning strategies into all of the routines of your early childhood classroom. Explore hands-on materials in a way that fuels curiosity and leads to authentic questions. Learn how to plan investigations that incorporate art, math, and literacy. These new strategies and tools will transform how you teach science and inspire your students.

Exploring nature with young children (prek-1)
CT-1728-19D
0.5 semester credit hour
Date: June 15
Time: 8:00am-4:30pm
Location: Denver Museum of Nature & Science
Instructor: Cybil Holmes
Tuition Fee: $35
Registration Fee: $75

What young child doesn't enjoy collecting sticks and rocks while they are out for a walk? Learn how to put that natural curiosity to work using engaging opportunities for science inquiry. Explore City Park and experience nature firsthand with hands-on investigations and ways to create authentic connections between home and school. This unique opportunity is sure to pique your curiosity as well!

to register, visit https://www.dmns.org/learn/teacher-professional-development/early-childhood-education/ or contact teacherprograms@dmns.org
SCIENCE WRITING: PATHWAYS TO DISCOVERY
(Gr. 9-12)
CT-1166-19F
0.5 semester credit hour
Date: October 26
Time: 8:30am-5:30pm
Location: CSM campus, Golden
Instructor: Steven Veatch
Tuition Fee: $40 (payable during workshop)
Registration Fee: $55

Explore effective teaching strategies that promote the use of science writing. Discover how to use science writing as pathways to discovery and achievement for your students. Topics include the format of a scientific manuscript, writing research papers, advanced research methods, writing techniques and tips, and the use of illustrations and images.

To register or for more information, contact:
Steven Veatch
719/748-5010 or steven.veatch@gmail.com
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:

- [ ] E-mail: __________________________________________
- [ ] 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

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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:

CSM Teacher Enhancement Program
1600 Jackson St., Ste. 190
Golden, CO 80401
Phone: (303) 384-2692
http://te.csm.space.com