

Teacher Enhancement Program for K-12 Educators

AT THE COLORADO SCHOOL OF MINES



SPRING 2013

<http://te.csmspace.com>

COLORADO SCHOOL OF MINES

Teacher Enhancement Program

Spring 2013

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
Office of Special Programs & Continuing Education
Colorado School of Mines
Golden, CO 80401-0028
(303) 279-3855

To view the most current course listings or to order an official TE transcript, 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. 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.

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

Spring 2013 Course Offerings

ROCKY MOUNTAIN MAMMALS (K-12)

CT-1126-13S
1 semester credit hour
Dates: February 9-10
Time: 9:00am-5:00pm
Location: CSM campus, Golden
Instructor: Marty Colon
Tuition Fee: \$125

The Rocky Mountains are blessed with a great diversity of wildlife. Learn how to easily identify mammals and see more wildlife. Explore how the past has impacted current mammal distribution, and what the future holds for Rocky Mountain mammals.

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

COYOTES: THE SONG DOGS OF THE WEST (K-12)

CT-1309-13S
0.5 semester credit hour
Date: February 16
Time: 8:00am-4:00pm
Location: RMNA, Estes Park
Instructor: Jared Gricoskie
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$70

Coyotes are one of the country's most successful and resourceful predators. Explore the country's second largest canine's natural history, Native American stories, discovery by Lewis and Clark, and expansion to the east. Travel into RMNP to study coyote anatomy, habitat, social structure, and interactions with the ecosystem, prey, and mankind.

To register or for more information, contact:

Rachel Balduzzi, RMNA
970/586-3262 or Rachel.balduzzi@rmna.org

WINTER ECOLOGY (K-12)

CT-1310-13S
1 semester credit hour
Dates: March 2-3
Time: 9:00am-5:00pm
Location: CSM campus, Golden
Instructor: Marty Colon
Tuition Fee: \$125

Explore the wonderful world of winter. Learn what to look for to understand the "basic principles of winter." This knowledge will transform the season into the perfect lab for learning about the amazing and varied adaptations that allow plants and animals to survive the extremes of the season.

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

BELIZE: CORAL REEFS AND MAYA RUINS (K-12)

CT-1112-13S
4 semester credit hours
Dates: March 23-31
Location: Belize, Central America
Instructor: Melanie Phelps
Tuition Fee: \$2,710 (includes airfare, lodging, ground transportation, tours)

Submerge yourself in the colorful world of the Belize coral reefs. Explore the fish as they change sexes, groom each other, and develop complex relationships of symbiosis. Then wander into the land of the ancient Mayans, with their extravagant architecture, rituals, and games.

To register or for more information, contact:

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

SPAIN: HISTORY OF CRUSADERS AND KINGS (K-12)

CT-1201-13S
4 semester credit hours
Dates: March 23-31
Locations: Spain
Instructor: Joyce Webb
Tuition Fee: \$3,670 (includes airfare, lodging, ground transportation, tours)

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

ANIMAL TRACKING: THE SCIENTIFIC METHOD IN ACTION (K-12)

CT-9938-13S
1 semester credit hour
Dates: April 13-14
Time: 9:00am-5:00pm
Location: CSM campus, Golden
Instructor: Marty Colon
Tuition Fee: \$130

Tracking is a basic naturalist's skill that will greatly expand your experience, knowledge, and understanding of nature. Learn a systematic method that will enable you to identify virtually any North American mammal's footprints. After you learn to track, the outdoors will never look the same!

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

NORTH WITH THE SPRING: BIRD MIGRATION (K-12)

CT-1308-13S
0.5 semester credit hour
Date: April 18
Time: 8:00am-4:30pm
Location: RMNA, Estes Park
Instructor: Jeff Maugans
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$70

April in the high country is a time when we welcome back birds that have spent the winter in warmer climates. Explore several locations in and around Estes Park and RMNP identifying as many species as possible by sight and sound, and learn about their natural history.

To register or for more information, contact:
Rachel Balduzzi, RMNA
970/586-3262 or Rachel.balduzzi@rmna.org

TEACHING OUTSIDE THE BOX CONFERENCE: COLORADO'S CONFERENCE ON ENVIRONMENTAL EDUCATION (PREK-12)

CT-1311-13S
1 semester credit hour
Dates: April 26-28
Location: Denver Green School
Course Coordinator: Jenn Rieskamp, 303/273-9527
Tuition Fee: \$60 (**payable during workshop**)
Registration Fee: varies; check website www.cae.org

This action-packed conference brings together the best in environmental education with engaging presentations, networking, resource sharing, classroom-ready activities, and more. Choose from over 50 sessions on topics ranging from outdoor skills, forestry, wildlife, art and nature, science and literacy, and environmental education and standards.

To register or for more information, contact:
Colorado Alliance for Environmental Education
info@cae.org or 303/273-9527

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

CT-1031-13S
1 semester credit hour
Dates: April 27-28
Time: 8:00am-5:00pm
Location: meet in Pueblo; drive to NM
Instructor: Melanie Phelps
Tuition Fee: \$140

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

PICKETWIRE DINOSAUR TRACKS BY MOUNTAIN BIKE (K-12)

CT-0350-13S
1 semester credit hour
Dates: May 4-5
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

LIFE SIGNS: TRACKING THE INVISIBLE (K-12)

CT-1235-13S
0.5 semester credit hour
Date: May 15
Time: 8:30am-4:30pm
Location: RMNA, Estes Park
Instructor: Kevin Cook
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$70

A swelling on a twig or a hole in a stem, a stray feather or piece of eggshell, an abandoned nest or a mound of soil: so many different things tattle the comings and goings of secretive creatures that otherwise remain invisible. Learn how to acquire then develop the observation skills necessary to read wildlife signs as if they were a newspaper.

To register or for more information, contact:
Rachel Balduzzi, RMNA
970/586-3262 or Rachel.balduzzi@rmna.org

Additional Programs of Interest

SOUTH PLATTE EDUCATION SERIES

CT-9421; **Build-Your-Own Natural History of Colorado**

A natural history series designed to your interests and teaching needs. Choose from a menu of courses which provide hands-on exploration of the wildlife and ecosystems along the S. Platte river. Combine classes on evenings and/or weekends to earn one semester credit hour. Visit our website at www.sspr.org/nature for class descriptions.

Contact Skot Latona, South Suburban Park and Recreation District, at 303/730-1022 x14 or email skotl@sspr.org for details or to obtain the special tuition flat rate.

EcoAdventure Course Offerings

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

IT'S SENSE'SATIONAL: HOW ANIMALS SEE, HEAR, SMELL, TOUCH, AND TASTE (K-8)

CT-96102-13S

1 semester credit hour

Dates & Times:

January 26 (9:00am-5:00pm)

January 27 (9:00am-4:00pm)

Location: CSM campus, Golden

Tuition Fee: \$135 (**\$155 after Jan. 10th**)

Let your senses go "wild" and discover what it is like to explore the world using the senses of a variety of Colorado's animals. Understand how differently animals perceive the world with hands-on activities and "make and take" items. Try to follow an owl's acoustic map or see with animal vision.

SOME CALL'EM BUFFALO - WE CALL'EM BISON (K-12)

CT-9616-13S

1 semester credit hour

Dates & Times:

February 9 (9:00am-5:00pm)

February 10 (9:00am-4:00pm)

Location: CSM campus, Golden

Instructor: Pam Batton

Tuition Fee: \$135 (**\$155 after January 24th**)

Discover the history behind the name and the animal, as well as its natural history. Take a field trip to a bison ranch and get a closer look at a part of our American heritage. Taste its healthful qualities as we sample our subject at a buffalo restaurant. Explore the connection of Native people to the bison then and now.

THE MOUNTAIN MAN: FINDING A HISTORICAL FIGURE BENEATH THE LEGEND (K-12)

CT-9960-13S

1 semester credit hour

Dates & Times:

February 23 (9:00am-5:00pm)

February 24 (9:00am-4:00pm)

Location: CSM campus, Golden

Instructor: Trey Corkern

Tuition Fee: \$135 (**\$155 after Feb. 7th**)

Learn how to separate the historical fur trader from the fictitious mountain man. Trace a remarkable history from 1805 to 1850 with an emphasis on economics, geography, cultural change, and experimental archaeology. Learn how to make moccasin patterns, sample historical foods, and make a fire with flint and steel.

WILD FELINES OF COLORADO (K-12)

CT-9712-13S

1 semester credit hour

Dates & Times:

March 9 (8:00am-5:00pm)

March 10 (9:00am-3:00pm)

Location: CSM campus, Golden

Instructor: Pam Batton

Tuition Fee: \$140 (**\$160 after February 21st**)

Discover the mysterious mountain lion, evasive bobcat, and reintroduced lynx. Explore each animal's natural

history through hands-on activities and an opportunity to observe a live mountain lion, bobcat, and others on a field trip to a feline refuge. Play simulation games to understand habitat, territoriality, predator/prey relationships, and population dynamics.

THIRTEEN THOUSAND YEARS OF COLORADO HISTORY (K-12)

CT-1069-13S

1 semester credit hour

Dates & Times:

March 16 (9:00am-5:00pm)

March 17 (9:00am-4:00pm)

Location: CSM campus, Golden

Instructor: Trey Corkern

Tuition Fee: \$135 (**\$155 after Feb. 28th**)

Take a tour through Colorado culture. Discuss Native Americans, Spanish settlers, pioneers, railroaders, miners, the Tenth Mountain Division, baby boomers, ski bums, and more. Make, use, and take home a plethora of EcoAdventure "make and take" classroom projects.

BIRDS OF PREY (K-12)

CT-9614-13S

1 semester credit hour

Dates & Times:

April 6 (12:00pm-7:30pm)

April 7 (8:30am-4:00pm)

Location: CSM campus, Golden

Instructor: Pam Batton

Tuition Fee: \$135 (**\$155 after March 21st**)

Learn about Colorado's common birds of prey through activities that will help you to identify and understand their behaviors. Focus on nocturnal and diurnal raptors. Field trips will include owl and hawk watching during the spring migration.

To register, 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.

Denver Museum of Nature & Science Course Offering

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

MAKING SCIENCE RELEVANT (HYBRID ONLINE COURSE) (GR. 4-8)

CT-1072-13S

2 semester credit hours

Dates: January 26-March 2

January 26 (8:30am-3:30pm)

February 9 (8:30am-3:30pm)

March 2 (8:30am-3:30pm)

Instructor: Robert Payo

Tuition Fee: \$80

Take a critical look at making science more relevant for your students. Gain special access to collections, scientists, and inquiry-oriented activities during Museum sessions that are supported by online sessions focused on

integrating new content into your classroom and sharing ideas with your colleagues. This hybrid course includes three face-to-face meetings plus an online component from Jan. 27 through March 2. Receive a \$120 stipend after successful course completion.

**To register or for more information, contact:
DMNS Reservation, 303/370-6000
Monday-Friday, 9am-5pm**

Butterfly Pavilion Course Offering

Note: Register for the Butterfly Pavilion course through the Pavilion. See box below.

WHAT'S THE BUZZ? INTRO TO INSECTS IN ART & CULTURE (K-5)

CT-0712-13S
0.5 semester credit hour
Date: February 9
Time: 8:00am-5:00pm
Location: Butterfly Pavilion, Westminster
Instructor: Deborah Brooks
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$45

Discover the cultural significance of insects and the important role they played in everyday life and art in

ancient cultures around the world. Learn new standards-based lesson plans and fun hands-on art activities for your classroom that integrate art, science, and culture.

**To register or for more information contact:
Butterfly Pavilion Registrar
720/974-1861**

Cheyenne Mountain Zoo Course Offerings

Note: Register for Cheyenne Mtn. Zoo courses through the CM Zoo. See box below.

BIG CATS IN CRISIS (K-12)

CT-1134-13S
0.5 semester credit hour
Date: January 19
Time: 9:00am-5:00pm
Location: Cheyenne Mtn. Zoo, Colorado Springs
Instructor: Megan McDaniel
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$55.25 members; \$65.25 non-members

Learn about some of the world's most endangered felines (Amur Tigers, Amur Leopards, and Snow Leopards) and what is being done to help save these fabulous felines. Visit behind the scenes and try out some hands-on activities you can use in your classroom.

AFRICA BASE CAMP (GR. 6-12)

CT-1307-13S
0.5 semester credit hour
Date: February 16
Time: 9:00am-5:00pm
Location: Cheyenne Mtn. Zoo, Colorado Springs
Instructor: Megan McDaniel
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$55.25 members; \$65.25 non-members

What does research look like in the field? Explore how scientists conduct studies in Africa using telemetry, tracking, identifying spoor, and more. From lions to rhinos to elephants, traverse the savanna right on Cheyenne Mountain.

PENGUINS ON PARADE (K-12)

CT-1131-13S
0.5 semester credit hour
Date: March 16
Time: 9:00am-5:00pm
Location: Cheyenne Mtn. Zoo, Colorado Springs
Instructor: Megan McDaniel
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$55.25 members; \$65.25 non-members

Did you know that the African Black-footed Penguin is on the endangered species list? Find out why and learn what the Zoo is doing to help. Receive an educational packet filled with activities to engage your students.

INQUIRY INVESTIGATIONS AT THE ZOO (K-12)

CT-1306-13S
0.5 semester credit hour
Date: April 13
Time: 9:00am-5:00pm
Location: Cheyenne Mtn. Zoo, Colorado Springs
Instructor: Megan McDaniel
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$55.25 members; \$65.25 non-members

Looking for more ways to incorporate inquiry in your classroom? Discover a method that helps make inquiry more accessible -- the Dragonfly QUEST. Experience a successful inquiry investigation right at the Zoo and go home with a new understanding of inquiry application.

**To register or for more information, contact:
Erin Hobson, 719/633-9925 (x127) or
edprograms@cmzoo.org**

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 WILD: A GLOBEOLGY ADVENTURE (K-12)

CT-9598-13S
0.5 semester credit hour
Date: February 9
Time: 8:30am-4:45pm
Location: The Wildlife Experience, Parker
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$29

Immerse yourself in eight interactive biome exhibits, and experience diverse environment-based WILD activities that incorporate reading, writing, math, social studies, and visual arts.

For more information or to register, contact:

The Wildlife Experience
720/488-3344

PROJECT WET (K-12)

CT-9629-13S
0.5 semester credit hour
Date: February 23
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. 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

PROTECTING OUR PRAIRIES (GR. 2-8)

CT-1178-13S
0.5 semester credit hour
Date: March 2
Time: 8:45am-5:00pm
Locations: Cheyenne Mtn. Zoo & State Park, Colorado Springs
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$55.25 for CMZ members; \$65.25 non-members

Learn about the interactions of the prairie ecosystem and the science skills associated with saving and managing endangered species. Start the day at the Park visiting a prairie dog colony, and conclude at the Zoo with up-close encounters of prairie animals.

To register or for more information, contact:

Erin Hobson, Cheyenne Mtn. Zoo
719/633-9925(x127) or edprograms@cmzoo.org

ENVIRONMENTAL EXPERIENCES FOR EARLY CHILDHOOD (PREK-K)

CT-1208-13S
0.5 semester credit
Date: April 14
Time: 8:30am-4:30pm
Location: Denver Botanic Gardens
Registration Fee: \$40 DBG members, \$45 non-members
Tuition Fee: \$35 (**payable during workshop**)

Learn how to integrate environmental education into your ECE classroom using PLT. Discover how to provide environmental experiences through literature, music, art, and movement. Take ideas from the Mordecai Children's Garden to create natural play and exploration spaces in your school yard.

To register or for more information, contact:

Denver Botanic Gardens
720/865-3580 or <http://catalog.botanicgardens.org>

BASIC PROJECT LEARNING TREE: NATURE CONNECTIONS (PREK-8)

CT-0822-13S
0.5 semester credit hour
Date: May 4
Time: 9:00am-5:00pm
Location: Cheyenne Mtn. Zoo, Colorado Springs
Tuition Fee: \$35 (**payable during workshop**)
Registration Fee: \$55.25 CMZ members, \$65.25 non-members

Focus on PLT for ECE in the morning and then finish the day exploring lessons for upper grade levels. Be empowered with developmentally appropriate lessons and activities that connect students with nature.

For more information or to register, contact:

Erin Hobson, Cheyenne Mtn. Zoo
719/633-9925(x127) or edprograms@cmzoo.org

For updated information:

Project WILD, 303/291-7165
Project Learning Tree, 303/278-8822
www.coloradopl.org
www.wildlife.state.co.us/Education

Summer 2013 Canoe Trips

Note: Register for canoe trips through Centennial Canoe Outfitters. See box below.

GEOLOGY, ECOLOGY, AND ART OF THE GREEN RIVER BY CANOE, LEVELS I & II (K-12)

CT-1209-13M

3 semester credit hours

Dates & Times:

Lecture: July 22 (9:00am-5:00pm)

Canoe Trip: July 24-28

Locations: The lecture will be held at CSM, Golden. The trip will begin and end in Moab, UT.

Instructors: Ed Adams, Karen Caddis

Tuition Fee: \$748 (**\$100 deposit required upon enrollment**)

Join a geologist and biologist to explore 60 miles of wilderness along Utah's peaceful Green River as it winds through the red-rock formations just north of Canyonlands National Park. The course will emphasize the unique geology and natural history of the area as we investigate its riparian ecosystem and the surrounding desert to learn how human, plant, and animal life has adapted. Study how people and the passage of time have changed the region. Create art and poetry, learn how to gather and prepare plants for food and utilitarian uses, and consider how the night sky has influenced various cultures.

Centennial Canoe Outfitters will supply all canoes, group equipment, meals, and canoeing instruction prior to the trip. You are responsible for your transportation to the river and back. No previous canoeing experience is required.

Level II Courses

Former participants in Level I classes can qualify for Level II credit by completing a special project to be conducted concurrently with the basic class offering.

ASTRONOMY IN THE WILDERNESS/COLORADO RIVER, LEVELS I & II (K-12)

CT-0262-13M

2 semester credit hours

Dates & Times:

Lecture: August 1 (1:00-8:30pm)

Canoe Trip: August 3-5

Locations: The lecture will be held at Fiske Planetarium, Boulder. The trip will begin and end near Grand Junction, CO.

Instructor: Sanlyn Buxner

Tuition Fee: \$469 (**\$100 deposit required upon enrollment**)

Get away from the city lights and view spectacular sights of the heavens along the Colorado River as you canoe through canyons of the Colorado Plateau. Learn about basic properties of stars and stellar evolution, constellations, properties of light, basic optics, deep sky objects, solar system dynamics, and new topics in astronomy. Course includes fun ways to teach astronomy in the classroom.

To register, mail the CSM enrollment form along with the \$100 deposit (made payable to Centennial Canoe Outfitters) to:
Centennial Canoe Outfitters
P.O. Box 3365
Centennial, CO 80161-3365
720/283-0553 or toll-free 1/877/353-1850
E-mail: info@centennialcanoe.com
Register online: www.centennialcanoe.com

Summer 2013 Course Preview

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

CT-1303-13D

1 semester credit hour

Dates: June 1-2

Location: Denver to Glenwood Springs

Instructor: Melanie Phelps

Tuition Fee: \$380 (includes train fare, lodging, tours)

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

ITALY REVEALED: EXPLORING THE LAND OF THE ANCIENT ROMANS (K-12)

CT-0805-13D

5 semester credit hours

Dates: June 6-18

Location: Italy

Instructor: Joyce Webb

Tuition Fee: \$4,410 (includes airfare, lodging, ground transportation, entry fees)

Travel from Roman temples to medieval churches, and from the ruins of Pompeii to Vatican City's treasure trove. Walk through the Roman Forum and sleep in the city of Siena. Experience Florence, the artistic capital of the world; hike along Le Cinque Terra, the sun-drenched Italian Riviera; marvel at the Leaning Tower of Pisa; and absorb Venice, the most romantic city in the world.

To register or for more information, contact:

Joyce Webb, 719/229-5482

joycewebb@ymail.com

www.coloradorivertrip.com

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

CT-1304-13D

6 semester credit hours

Dates: June 7-21

Location: Alaska

Instructor: Melanie Phelps

Tuition Fee: \$4,850 (includes airfares, lodging, ground transportation)

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. Fee includes flights, ferries, tours, and lodging. Price may vary based upon air and ferry fares.

To register or for more information, contact:

Melanie Phelps, 719/252-1789

melaniephe@aol.com

www.coloradorivertrip.com

ECOLOGICAL CATTLE RANCHING (K-12)

CT-0300

3 semester credit hours

Dates:

Session I: June 8-15

Session II: July 13-20

Location: north of Cortez, CO

Tuition Fee: \$130 (**payable during workshop**)

Registration Fee: \$1,200 (includes all meals, bunkhouse, horses, tours; **\$250 deposit required**)

Learn how an ecological cattle rancher works to maintain the balance between man and nature. Be an active participant in herding cattle from one area to another to prevent overgrazing. Study desert flora/fauna and wild horse management while riding through the beautiful canyons of southwest Colorado.

To register or for more information, contact:

Catherine Jones

970/883-2548 or cjscolors@frontier.net

ALL ABOUT MINING: A TOTAL CONCEPT OF THE MINING INDUSTRY (K-12)

CT-5700-13M

6 semester credit hours

Dates: June 10-July 3

Time: approx. 8:00am-mid-late afternoon (except on all-day field trips)

Location: CSM campus, Golden

Instructors: more than eighty authorities from industry, government, academia & private groups

Tuition Fee: \$250 (\$300 for registrations after May 31)

Obtain a general overview of the minerals industries, including geology, mining, ore-processing, environmental responsibility, career opportunities, etc., from industry experts via classroom lectures and nine days of field trips to surface/underground mines and processing plants. Finish the course with a set of lesson plans developed by course participants that you can apply in your classroom this fall.

To register or for more information, contact:

CMA Education Foundation, Inc.

303/575-9199, colomine@coloradomining.org

www.allaboutmining.org

MUSEUMS OF PARIS (K-12)

CT-04132-13D

4 semester credit hours

Dates: June 18-26

Location: Paris, France

Instructor: Joyce Webb

Tuition Fee: \$3,670 (includes airfare, lodging, ground transportation, entrance fees)

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

To register or for more information, contact:

Joyce Webb, 719/229-5482

joycewebb@ymail.com

www.coloradorivertrip.com

ROCKY MOUNTAIN FIELD CAMP (K-12)

CT-1312-13D

2.5 semester credit hours

Dates: June 21-26

Location: starts in Boulder

Instructors: Davida Buehler, Matt Dawson

Tuition Fee: \$120 (**payable during camp**)

Registration Fee: \$550-\$700

Join the Geological Society of America on an adventure to study some of the most spectacular and fascinating geology in the U.S. During our trip around Colorado, collect rocks and minerals, tour a gold mine, participate in a fossil dig, and soak in mineral hot springs. You must be able to hike in high altitudes. More information available at www.geoventures.org.

To register or for more information, contact:

Davida Buehler, GSA

303/357-1015 or dbuehler@geosociety.org

HIGH COUNTRY EQUESTRIAN ADVENTURE I (K-12)

CT-9667

3 semester credit hours

Dates:

Session I: June 23-28

Session II: July 21-26

Location: San Juan Mtns.

Tuition Fee: \$130 (**payable during workshop**)

Registration Fee: \$900 (includes all meals, group camping equipment, horse expenses, and wranglers; **\$250 deposit required**)

Take a horse pack trip through the beautiful wilderness area of the San Juan Mountains to observe flora and fauna in various altitude zones, incredible geological features, and the ecological impact of human activity in the mountains. Provide your own transportation to and from the trailhead north of Durango. You should be in good physical condition.

To register or for more information, contact:

Catherine Entihar Jones

970/883-2548 or cjscolors@frontier.net

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

CT-0419-13M

4 semester credit hours

Dates: June 26-July 5

Location: Ireland

Instructor: Joyce Webb

Tuition Fee: \$2,870 (includes airfare, lodging, ground transportation, and tours)

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

THE GRAND CANYON OF THE COLORADO – THE ULTIMATE RIVER EXPEDITION (K-12)

CT-0428-13M

3.5 semester credit hours

Dates: July 4-10

Location: Grand Canyon

Instructor: Melanie Phelps

Tuition Fee: \$2,750

Experience the stunning geology of more than two billion years of earth history as you whitewater raft through some of the world's most famous rapids. Includes 6.5 days on a motorized raft, helicopter airlift to the rim, flight on a twin engine plane, and all food. This is the ultimate river trip.

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-0706-13M

4 semester credit hours

Dates: July 5-14

Location: Scotland

Instructor: Joyce Webb

Tuition Fee: \$3,570 (includes airfare, lodging, ground transportation, entry fees)

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

MIDDLE/HIGH SCHOOL IPS PHYSICAL SCIENCE (GR. 7-10)

CT-0786/CT-0845/CT-1039-13M

2 semester credit hours (each week)

Dates:

Workshop I: July 14-19 (chapters 1-6)

Workshop II: July 21-26 (chapters 7-11)

Workshop III: July 21-26 (chapters 12-16)

Time: 8:30am-4:00pm

Location: CSM Campus, Golden

Instructor: Bob Stair

Tuition Fee: \$390 (per week)

Cover 6, 11 or all 16 chapters of the 9th edition of the IPS text to enhance your knowledge and classroom performance in physical science. Experience the use of student experiments while developing an understanding of basic concepts and laboratory skills.

To obtain an application, contact:

Bob Stair, SCI

303/988-5041 or rstair@sci-ips.com

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

CT-0964-13M
4 semester credit hours
Dates: July 14-24
Locations: Belgium & France
Instructor: Joyce Webb
Tuition Fee: \$3,970 (includes airfare, lodging, ground transportation, entry fees)

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

To register or for more information, contact:
Joyce Webb, 719/229-5482
joycewebb@ymail.com
www.coloradorivertrip.com

HAWAII: VOLCANOES & CORAL REEFS (K-12)

CT-0906-13M
4 semester credit hours
Dates: July 16-25
Location: Big Island of Hawaii
Instructor: Melanie Phelps
Tuition Fee: \$3,270 (includes airfare, ground transportation, lodging, entrance fees)

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

THE GREEN RIVER – MAJESTIC JOURNEY FROM GLACIERS TO GORGES (K-12)

CT-0355-13M
5 semester credit hours
Dates: July 29-August 7
Locations: Yellowstone & Grand Teton National Parks, Flaming Gorge, Dinosaur National Monument
Instructor: Melanie Phelps
Tuition Fee: \$1,600

Discover river headwaters, geysers, mud pots, and mountains while exploring Yellowstone and the Grand Teton National Parks. Follow the Green River from its mother snowfields in the Wind River Range of Wyoming through the beautiful Flaming Gorge and into the sandstone cliffs of Dinosaur National Monument. Whitewater raft and canoe through convoluted canyons, and gaze upon dinosaur bones and Fremont rock art while conducting authentic environmental research.

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:

E-mail: _____

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 course(s) for which you are registering

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

Total: _____

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

Make checks payable to CSM Office of Continuing Education.

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

CSM Teacher Enhancement Program
 1600 Jackson St., Ste. 160A
 Golden, CO 80401
 Phone: (303) 279-3855
<http://te.csmspace.com>