

# SUMMER 2017

## Earth Science Outside for K-12 Educators

**Three one-credit-hour workshops. Take individually for USOE or SUU credit.**

**Or...Take all 3 workshops and fulfill an endorsement credit for Geology or Earth systems via WSU (see below)**

**New!**

**These workshops will explore ways to teach using 3-D Thinking Maps... toward the Utah Science with Engineering Education (SEEd) Standards... asking questions, using models, obtaining information...**



### 1--July 10-14. Earth Science Outside - Landforms - Wasatch Front

USOE OnTrack 34745. Monday through Friday. Offered mornings and late afternoon. Okay to mix AM and PM. *For K-12 teachers. Geological features, physical features of Earth, tectonics. "Changes to Earth over Time", and earthquake hazards. Includes a field trip to observe evidence of the Wasatch fault, West Valley faults, glacial features of Little Cottonwood Canyon and shorezone features of Lake Bonneville.*



### 2--July 17-21. Earth Science Outside - Rocks and Minerals - Wasatch Front

OnTrack 34751. Monday through Friday. Offered mornings and late afternoon. Okay to mix AM and PM.

*For K-12 teachers. Rocks and minerals, the rock cycle, and Utah's rocks and minerals. "Interactions with Natural Systems and Resources." Includes a field trip to the Oquirrhos near Bingham Copper Mine or to US Magnesium.*



### 3--July 25-28. Earth Science Outside - Geologic History - Wasatch Front

USOE OnTrack 34750. Tuesday through Friday. Offered mornings and late afternoon. Okay to mix AM and PM.

*For K-12 teachers. Utah's past, and Earth systems. "Stability and change..." and "Changes to Earth Over Time" This course simplifies the fascinating geology of the Wasatch Front, special because so much evidence of change is exposed with many relationships that can be shared with students.*

**THREE REGISTRATION OPTIONS (search "Earth" on OnTrack or by workshop number, above).**

- (a) Take one or more workshops via USBE OnTrack for relicensure points, or USBE credit.
- (b) Take one or more workshops for SUU university credit. Register through USBE Ontrack. Register later for SUU at \$21 per workshop.
- (c) Amazing!! WSU!!! Take all three workshops during the summer 2017 to fulfill an endorsement course credit for Geology or Earth systems science. Register now for USBE OnTrack 34752 *and register in June for WSU Geo5030*. WSU registration cost for 3 credit hours has been \$40 but may change in 2017. What an arrangement!. Note: this WSU option is terrific if you intend to teach for a while.

See *schedule of sessions -- reverse side of this page.*

For course details: <http://www.earthscienceeducation.org>

**SCHEDULE -- 2017 -- Earth Science Outside summer workshops --** Okay to mix and match, mornings or afternoons.

**Earth Science Outside- LANDFORMS - Wasatch Front - (USOE-OnTrack Course #34745 - Section 83836)**

July 10 Mon 8:30-11:30AM or 5 - 8 PM LANDFORMS and UTAH's REGIONS - Flat Iron Park (upper), 1675 E 8600 S, Sandy, 84093  
July 11 Tues 8:30-11:30AM or 5 - 8 PM TECTONICS - Silver Hills Elementary, 5770 W 5100 S, West Valley City, 84118  
July 12 Wed 8:30-11:30AM or 5 - 8 PM EROSION-DEPOSITION - Arrowhead Park, 598 W 4800 S, Murray, 84123  
July 13 Thurs 8:30-noon or 5 - 8:30 PM FAULTS and SHORELINES FIELD TRIP- begins at Hillsdale 3275 W 3100 S, West Valley City, 84119  
July 14 Fri 8:30-11:30AM or 5 - 8 PM GLACIAL PROCESSES - PAST CLIMATES - Silver Lake Info Center, Brighton, 84121

**Earth Science Outside - ROCKS and Minerals - Wasatch Front (USOE-OnTrack 34751 - Section 83896)**

July 17 Mon 8:30-11:30AM or 5 - 8 PM MINERALS - Wite Cemetery, 3475 W 9000 S, West Jordan, 84088  
July 18 Tues 8:30-11:30AM or 5 - 8 PM ROCKS and ROCK CYCLE - Temple Quarry Park, Little Cottonwood Rd, Sandy 84092  
July 19 Wed 8:30-11:30 AM or 5 - 8 PM LIMESTONES and FOSSILS - Warm Springs Park, 840 N 300 W, Salt Lake City, 84103  
July 20 Thurs 8:30-noon or 5 - 8:30 PM ECONOMICS FIELD TRIP - **begins at !! Granite Transportation, 3000 W Parkway Blvd, SLC, 84119 !!**  
July 21 Fri 8:30-11:30AM or 5 - 8 PM ROCKS and MINERALS- Fort Douglas Cemetery, 421 S Chipeta (near NHMU), Research Park, SLC, 84113

**Earth Science Outside - GEOLOGIC HISTORY - Wasatch Front (USOE-OnTrack 34750 - Section 83928)**

July 25 Tues 8AM - noon or 5 - 9 PM THE RULES of RELATIVE AGE - Creekside Park, 1664 E Murray-Holladay Blvd, Salt Lake City, 84117  
July 26 Wed 8AM - noon or 5 - 9 PM EVIDENCE of UTAHs GEOLOGIC PAST - Pleasant Green Park, 3280 S 8400 W, Magna, 84044  
July 27 Thurs 8AM - noon or 5 - 9 PM FIELD MAPPING - Mouth of Parley's Canyon, bicycle trail parking lot. 2700 S Wasatch Blvd, SLC 84108  
July 28 Fri 8AM - noon or 5 - 9 PM CLIMATE, GEOLOGIC HERITAGE, MINING - Herriman Springs Park, 6979 W Rose Canyon Rd, 84096

**Note: these three workshops bundle into Weber State University's Geo5030 - Earth Science of the Wasatch Front.** It fulfills an endorsement course credit for Geology or Earth systems science. Register now for USBE-OnTrack Course #34752-Section 83950 and in June for WSU Geo5030. Or, take one or more workshops for USBE or for SUU university credit.



*What makes these courses special? They are taught outside, by Genevieve Atwood, PhD., former State Geologist, emeritus faculty UofU, presently with Earth Science Education. Workshops are held at different places in Salt Lake County. Genevieve teaches how to use local phenomena / observations to teach Utah's new science curriculum. She role models joy and experiential, inquiry learning. Teacher-participants receive approximately \$50 worth of classroom supplies, text, maps and other useful materials supported by Earth Science Education donors including foundations (Quinney; Steiner; Redd), industry (USMagnesium, Rio Tinto, Intermountain Bobcat, Wheeler Machinery, Utah Mining Assoc.), and individuals.*

*QUESTIONS? Course content = Genevieve Atwood (genevieveatwood@icloud.com)  
On-Track = 801-538-7807 (ontrack@schools.utah.edu)  
For SUU-1-credit = Kelsey Brotherson (k12inservice@SUU.edu), or Genevieve.*