



Illinois Association of Aggregate Producers

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Important Instructions For Workshop Participants

The *Illinois Teachers Workshop: Rocks, Minerals & Mining In Today's Society* is scheduled for July 17 - July 19, 2017 at Chestnut Mountain Resort located at 8700 W. Chestnut Mountain Road in Galena, Illinois. The Illinois Association of Aggregate Producers (IAAP) is sponsoring this three-day event providing you with creative and fun activities to enhance classroom lesson plans. We are glad you will be joining us for this workshop. **If for any reason you are unable to attend**, please call 217-241-1639 or email shawn@iaap-aggregates.org as soon as possible; we have a waiting list of teachers to take your spot in this workshop.

- **Check-in will be from 10:15 to 11:00 on Monday, July 17th.** Lunch will be provided.
- We have reserved your sleeping room for **Monday and Tuesday nights only at Chestnut Mountain.** Your accommodations include a comfortable, air-conditioned, non-smoking, private room unless you indicated on your registration form that you would share a room with a friend or that you live nearby and don't need a room. Other notes: (a) If you live locally and will not need a hotel room, contact the IAAP as soon as possible. (b) If you plan to arrive on Sunday, you must make your own hotel arrangements for that night (please inform the IAAP so that we can request that you can stay in that room for the whole workshop).
- **Closed-toe shoes such as gym shoes are required during all workshop activities (no exceptions).** Some of the hands-on activities are a little messy so jeans, shorts, and T-shirts are recommended on Monday and Tuesday.
- On Tuesday and Wednesday we will be visiting active mining operations and geological formations requiring hiking on natural surface trails or other unpaved terrain. We will make reasonable accommodations if you have physical limitations. **For your safety on Wednesday, long pants (not capris) are required and boots are recommended but gym shoes are acceptable.** Bring your own sunscreen, bug repellent and a camera to take photos you may want to use in your classroom. It could rain so bring an umbrella or rain jacket as well.
- All meals, beginning with lunch on Monday, July 17th and concluding with lunch on Wednesday, July 19th, will be provided at no charge to you. Also, **if we are not already aware you have special dietary needs or food allergies, let us know right away.**
- **By July 7th,** please contact the IAAP giving us the name of an emergency contact person and their telephone number.
- Each day is packed full of activities and lectures from the morning until as late as 8:00 p.m. The full schedule will be posted on our website at www.iaap-aggregates.org/workshop.htm in early July.

- In order to receive Professional Development (PD) or graduate credit hours, you must be present during all workshop activities. You will receive either PD or graduate credit, but not both. **Teachers wishing to receive PD credit must provide your Illinois Educator Identification Number (IEIN) to the IAAP.**
- If you are interested in obtaining 2 graduate credit hours from Illinois State University for GEO 493.07, “Geology of Illinois: Teaching, Rocks, Minerals & Mining in the Classroom” at a cost of \$250, and have not yet paid this fee, we require your payment at check-in. **Please note: You must apply for admission to ISU by July 7th and provide your nine-digit University ID (UID) number to the IAAP in order to qualify for graduate credit. The next page outlines how to accomplish this.**
- Participants seeking graduate credit will be required to answer a packet of content questions based on each of the presentations in the workshop and create your own lesson plan, on your own or partnering with other teachers, that you may use in the future. Please see the course syllabus included with this letter. More information is available upon request.

We have reserved your sleeping rooms for Monday and Tuesday nights only. The cost of the room will be provided through the generosity of your IAAP sponsor. If you need a room on Sunday or Wednesday nights or for friends and family, it is your responsibility to make these arrangements through the Resort or a local hotel at your own expense. Due to liability concerns and distractions which can occur, it is our policy that your friends or family members, including minor children, who may be staying nearby cannot participate in any of our workshop activities.

In addition to hands-on activities, presenters will cover various topics related to the study of earth science, construction aggregate and industrial mineral mining, mined land reclamation, sustainability and resource stewardship in the aggregate mining industry here in Illinois. Participants will have the opportunity to collaborate and brainstorm ways in which this information can be incorporated into lesson plans. Don't forget to bring writing paper or computer to take notes. Numerous handouts, videos, posters, rock and mineral kits, fossil kits, and other educational materials will be given to each teacher who attends. Workshop materials are designed to be used by teachers in grades K-12 and can be modified for other purposes.

We are excited about this opportunity to meet you and provide valuable education, tools and materials for you, your classroom and students. If you need additional information, or have any questions, please call me or Jodi at 217-241-1639.

Sincerely,

A handwritten signature in black ink that reads "Shawn McKinney". The signature is written in a cursive style with a large, sweeping flourish at the end.

Shawn McKinney
IAAP Assistant Director

Instructions for Participants Seeking Graduate Credit Hours

Do you want to receive two (2) graduate credit hours for attending the Illinois Teachers Workshop: Rocks, Minerals & Mining in Today's Society? If so, you must be accepted as a visiting graduate student at Illinois State University (ISU).

If you have **attended ISU as a graduate student in the past year**, you should have a Redbird account and nine-digit University ID (UID) number. By July 7th, please contact the IAAP giving Shawn or Jodi your UID number. That's all you have to do to prepare for graduate credit—just make sure you have paid the \$250 course fee to the IAAP or bring a check to the Workshop.

If you have not attended ISU as a graduate student in the past year, you must complete an application to ISU as a Visiting Graduate Student by July 7th. Please follow these instructions:

Step 1: Go to the ISU website (<http://grad.illinoisstate.edu/admission/apply/>) and click the Apply Now button, then create an account. Enter an e-mail address that you actually use, not one that you rarely check. Once you've submitted your information, you will receive an e-mail with your University Login ID, commonly referred to as ULID.

Step 2: Go back to the ISU website (<http://grad.illinoisstate.edu/admission/apply/>) and click the Apply Now button then log in with your ULID and password provided in the email.

Step 3: Once logged in, select the "Visiting Non-Degree Seeking Applicants" button under Apply Now for Admission. Click the "Start New Application" button and follow the steps for the online application choosing "Visiting Graduate Student" when the option appears. When asked what term/semester you are applying for, choose "Summer" as the application term.

Step 4: There is a \$50 application fee which the IAAP will pay on your behalf. When asked to choose a form of payment, select the "Check or Money Order (Mailed)" option so you will not be charged immediately then click to submit for payment of the application fee. **Paying the application fee will not automatically submit the application; you need to go to the next page to submit the application itself.**

Step 5: Submit your application. *You will receive an e-mail from the Admissions Office with the submission confirmation.*

Step 6: After completing your online application and receiving your submission confirmation, please **contact the IAAP by July 7th giving Shawn or Jodi your nine-digit UID number** so that we can pay the application fee on your behalf. You must have previously paid the \$250 course fee or bring a check in that amount, payable to "IAAP", to the Workshop.

Note: When Admissions begins processing your application, you will receive a visiting student disclaimer statement via e-mail. You will need to reply to the e-mail stating that you have read and understand the disclaimer. **The visiting student application can take up to a week to receive a decision so please complete these steps prior to July 7th.**

If you have any trouble with the application process, contact Bridget Langdon at ISU (309-438-8635 or bmlangd@ilstu.edu) then the IAAP. More information about the Visiting Graduate Student program and application can be found at: <http://grad.illinoisstate.edu/admission/visiting/>

Information Checklist

Please provide the following information to the IAAP by July 7th.

Phone: 217-241-1639 | Fax: 217-241-1641 | E-mail: jodi@iaap-aggregates.org

My name: _____

In case of trouble, my emergency contact person is:

Name: _____ Telephone: _____

Please check all that apply to you and provide necessary information.

- I live near Galena and will not need a sleeping room at the resort.
- I plan to arrive on Sunday and have made my own hotel arrangements.
- I am vegetarian.
- I have special dietary needs which include: _____

I wish to receive:

- Professional Development credit
 - My IEIN is: _____
- Graduate Credit Hours
 - My nine-digit UID is: _____
 - I've already paid the \$250 course fee to IAAP
 - I will bring a personal check to pay the \$250 course fee
- No professional development or graduate credit for attending the workshop

GEO 493.07

Geology of Illinois: Teaching Rocks, Minerals, and Mining

July 17-19, 2017

Chestnut Mountain Resort, Galena, Illinois

Instructor: Lisa Tranel
E-Mail: ltranel@ilstu.edu
Phone: 309-438-7966
Office: 432 Felmley Science Annex

Overview

The main focus of the workshop is Illinois geology, mining, land reclamation, sustainability, and environmental issues. Misconceptions about the aggregates industry are also explored. During this workshop, teachers learn about, and actively participate in, various hands-on educational activities suitable for teaching earth science in the classroom. The information presented in the workshop lectures is then brought to life during field trips to active Illinois mining operations and land reclamation sites.

Learning Outcomes

- Participants will learn content and processes to encourage K-12 students to learn about their local environment.
- Participants will gain experience with activities related to earth science, geology and mining suitable for K-12 students.
- Participants gain knowledge about the geologic history of Illinois.
- Participants will discuss the processes, as well as the social, economic, and environmental impacts of mining.
- Participants will tour aggregate facilities and visit geologic field sites where they may organize their own field trips.

Evaluation

You will be given a packet of content questions to answer based on each of the presentations in the workshop. You can answer questions during presentations, use the presenters' notes and handouts, read the textbook provided, and ask any of the instructors for help during presentations, breaks, meals, bus rides, etc. Your answers will be evaluated on accuracy and completion.

During or after the workshop, you will create your own lesson plan (on your own or partnering with other teachers) that you may use in the future. Submit your lesson plan for evaluation directly to me at the end of the workshop, via email (ltranel@ilstu.edu), or through the ReggieNet website (see side bar). Your lesson plan will be evaluated based on the extent of careful and thoughtful completion and application of the NGSS standards of proficiency in science that:

- demonstrate behaviors that scientists engage in as they investigate the natural world.
- incorporate scientific concepts that link or crosscut with other fields.
- focus on a core idea important to earth science.

Grading

Grade Scale

- A: 90-100
 - B: 80-89
 - C: 70-79
 - D: 60-69
 - F: <60
-

Point Distributions

- Questions Packet: 80 points
- Lesson Plan: 20 points

Website

Reggienet:

<https://reggienet.illinoisstate.edu/xsl-portal>

View and submit assignments, check grades, find additional resources for the class.

Milestones

Workshop: July 13-15

- July 19: Submit questions packet
- July 21: Submit lesson plan (I will accept later submissions if necessary)

Field Trip Preparations

The following are required (*) or recommended items.

- Shoes appropriate for walking and quarry visits
- Positive attitude*
- Rain gear & jacket
- Camera
- Sun screen
- Bug spray

Schedule

Week 1: Monday - Wednesday

Workshop lectures and activities at Chestnut Mountain Resort followed by field trips to mines, quarries, and fossil collection sites (See 2017 Workshop Schedule for more details).

Week 2:

- Extra time to work on Lesson Plan if needed.
- Optional Online Discussions on ReggieNet (Participate at your own availability. Opportunity to use online discussion to collaborate on lesson plan partnership)

Rubric

Lesson Plan (20 points total)

Exceptional: (16-20 points) Each section of the lesson plan worksheet is complete. Descriptions and information are very clear and detailed. Each section demonstrates a deep level of planning and reflection. The lesson plan aligns very well with NGSS standards.

Very Good: (12-16 points) Each section of the lesson plan worksheet is complete. Descriptions and information are mostly clear and detailed. Each section demonstrates a good level of planning and reflection. The lesson plan aligns well with NGSS standards.

Satisfactory: (8-12 points) Some sections of the lesson plan worksheet were incomplete. Descriptions and information are sufficient to understand the methods, objectives, etc. Each section demonstrates a satisfactory level of planning and reflection. The lesson plan satisfactorily aligns with NGSS standards.

Needs Improvement: (4-8 points) Many of the sections of the lesson plan worksheet were incomplete. Descriptions and information are unclear or difficult to understand. Each section demonstrates a need to improve the level of planning and reflection. The lesson plan needs improvement to align with NGSS standards.

Incomplete: (0-4 points) Most of the sections of the lesson plan worksheet were incomplete. Descriptions and information are unclear or not included. Does not demonstrate much planning or reflection. The lesson plan does not align with NGSS standards.

Course:

Grade Level:

Time Duration: Will this lesson and activities be completed in a single day or over several days?

Lesson Purpose/Rationale/Essential Question:

Provide an overview of the main topics or central theme that will be addressed in this lesson. Describe why this topic/lesson is important for your students to understand.

Prior Knowledge Required:

List the prerequisite knowledge, skills, or abilities that are required for a student to be able to fully participate in this lesson.

Objectives/Learning Outcomes:

List the specific observable behavior or skills that a student will be able to complete as a result of this lesson. Be specific regarding how the students will be able to demonstrate the behavior or skill. Two spaces are provided, but your lesson may require more or fewer objectives.

- 1.
- 2.

Standards:

List the NGSS content area standards or learning standards that this lesson is designed to address. Select from the most relevant standards in your content area.

Materials and Resources Required:

Teacher: List the materials and resources that are required for the teacher to conduct this lesson.

Student: List the materials and resources that are required for the student to fully participate in this lesson.

Instruction: Fill out the following table with the specified information. Use as many of the Activity boxes as you need. You do not need to use all the boxes provided. You may add more boxes if they are needed for your plan.

| Activity/Method Title | Time | Description/Procedure |
|---|--|--|
| <i>Induction/Anticipatory Set:</i> List the title or type of introduction that will be used. | List the length of time for which this activity is designed. | Describe the procedure of this activity/method. This is best as a bulleted list of teacher actions. This should include specifics such as discussion questions, lecture content, grouping strategies, etc. as appropriate. Include any documents, handouts, presentations, etc. as attachments. |
| <i>Learning Activity/Method #1:</i> List the title or type of activity or method that will be used (i.e. lecture, cooperative learning). | List the length of time for which this activity is designed. | Describe the procedure of this activity/method. This is best as a bulleted list of teacher actions. This should include specifics such as discussion questions, lecture content, grouping strategies, etc., as appropriate. Include any documents, handouts, presentations, etc. as attachments. |

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|--|---------------|--|
| | | |
| <i>Learning Activity/ Method #2:</i> Same as above | Same as above | Same as above |
| <i>Learning Activity/ Method #3:</i> Same as above | Same as above | Same as above |
| <i>Learning Activity/ Method #4:</i> Same as above | Same as above | Same as above |
| <i>Closing:</i> List the title or type of closing activity that will be used. | Same as above | Describe the procedure that will be used to close the class. How will you provide closure to the lesson? |

Assignment/Homework:

List any assignments or homework that will be given throughout the lesson.

Assessment (formal and/or informal):

Provide a list of sources of information that you will use to determine if the students are meeting the lesson objectives. These should be directly tied to the objectives. There may be both formal and informal formative and summative assessments. Include any assessment tools as attachments. Include some specific questions you may ask through informal formative assessment. Explain the assessments for each stage of lesson plan, including the introduction, learning activities, and conclusion.

Formative:**Summative:****Accommodations/Modifications/Adaptations:**

Describe any adaptations that will be in the lesson to meet the needs of all students.

Course:

Grade Level:

Time Duration:

Lesson Purpose/Rationale/Essential Question:

Prior Knowledge Required:

Objectives/Learning Outcomes:

1.

2.

Standards:

Materials and Resources Required:

Teacher:

Student:

Instruction

| Activity/Method Title | Time | Description/Procedure |
|-------------------------------------|-------------|------------------------------|
| <i>Induction/Anticipatory Set:</i> | | |
| <i>Learning Activity/Method #1:</i> | | |
| <i>Learning Activity/Method #2:</i> | | |
| <i>Learning Activity/Method #3:</i> | | |
| <i>Learning Activity/Method #4:</i> | | |
| <i>Closing:</i> | | |

Teacher Name

[TITLE OF LESSON]

Lesson Plan

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|--|--|--|
| | | |
|--|--|--|

Assignment/Homework:

Assessment (formal and/or informal):

Formative:

Summative:

Accommodations/Modifications/Adaptations:
