

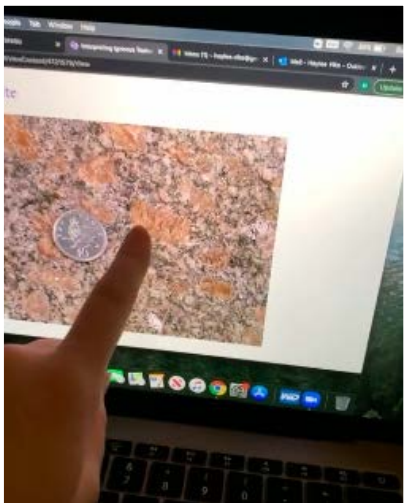
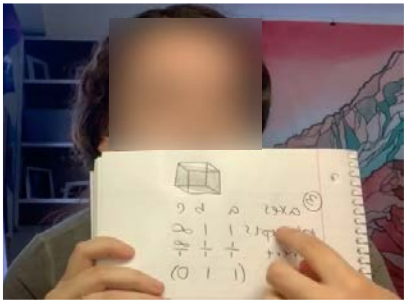
Walk-Through Videos

Flipgrid for Formative Assessment

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2021 Teaching Showcase
SFA Center for Teaching & Learning



- Hands-on Geology courses for majors – livestream/online
 - GEOL 2341 Mineralogy (Fall 2020)
 - GEOL 4343 Optical Mineralogy (Fall 2020)
 - GEOL 2342 Igneous & Metamorphic Petrology (Spring 2021)
- Reluctance to be on camera, hesitance to ask or answer questions, fewer opportunities for casual conversations
- How are students handling big concepts and difficult problems?
- Complex topics, complex answers: demonstrations, sketches, problem-solving, observations...

The image displays three screenshots of Flipgrid discussion pages, each for a different geology course. Each page includes a title, date, description of the activity, and a video thumbnail.

Top Screenshot: Miller Index Exercise - GEOL 2341
 Date: Aug 29, 2020
 Description: Determine the Miller indices for the 3 examples on Brightspace, then record yourself and tell me:
 1) Your answers to the 3 problems
 2) Explain the steps for one of the problems (you pick which one). You have up to 3 minutes to record your video. You can start over, or record a new one, or whatever, if you run too long. Only I will be able to view your videos; your classmates will not see it.
 Join Code: 95aad5ca
 Video Thumbnail: A woman and a man in a classroom setting with the text "YOU GOT THIS" overlaid.

Middle Screenshot: Pauling's Rules - GEOL 2341
 Date: Sep 13, 2020
 Description: Explain your answers in the two starred (*) questions in the Practice with Pauling's Rules exercise. You have up to 3 minutes to record your video. You can start over, or record a new one, or whatever, if you run too long. Only I will be able to view your videos; your classmates will not see it.
 Join Code: 72b20cc4
 Video Thumbnail: A 3D model of a blue crystal structure.

Bottom Screenshot: Interpreting Igneous Textures
 Date: Jan 14, 2021
 Description: After observing and interpreting an igneous rock (in photo), tell me which photo you chose, walk me through your geologic history, and let me know what evidence you used to make your interpretations. You'll be able to record for up to 5 minutes. Your classmates will not be able to see your video. You can record yourself, show me your work, or both. You do not necessarily need to appear in your video. If you want to show your work in the video and you have a device with a rear-facing camera, you can use the Flipgrid app on your device with the join code.
 Join Code: 09ea045b
 Video Thumbnail: A photograph of a volcanic eruption with a large plume of smoke and lava flows.



Module 12: The Optical Indicatrix

An Anisotropic Indicatrix (Activity)

Studying an indicatrix in more detail may help you start to get more comfortable with how they work. For this assignment you'll choose an anisotropic mineral, research its properties, and sketch its indicatrix, and explain your work to me via Flipgrid.

Choose an anisotropic mineral. If your project mineral is anisotropic, use that; otherwise, select any anisotropic mineral.

Look up your mineral in the back half of the textbook, and determine the following:

- Mineral name
- Crystal system
- Uniaxial or biaxial
- Optic sign (+) or (-)
- Indices of refraction, either n_x and n_y , or n_a , n_b , and n_c
- Birefringence, either a single value, or a range of values
- 2V, if appropriate

Once you have this information, use it to sketch and label your mineral's indicatrix. Sketch the indicatrix as you think it should look like based on the information you have. This is not an art class, so there are no expectations for the artistry of your sketch, only its accuracy.

Draw and label the section/slice through the indicatrix that would produce the mineral's maximum birefringence. What interference color corresponds to your mineral's maximum birefringence?

Once you're satisfied with your work, head to [Flipgrid](#) (or use the join code on the app: 33ea20bf). In your video, tell me how you used the mineral's reference information to sketch the indicatrix and the section/slice the way that you did.

You'll be able to record for up to 5 minutes. Your classmates will not be able to see your video.

You can record yourself, show me your work, or both. You do not necessarily need to appear in your video. If you want to show your work in the video and you have a device with a rear-facing camera, you can use the Flipgrid app on your device with the join code.

MINERALOGY
ASSIGNMENT

FLIPGRID
INSTRUCTIONS



Discussion > Anisotropic Indicatrix - GEOL 2341

Oct 25, 2020

Anisotropic Indicatrix - GEOL 2341

Share Actions

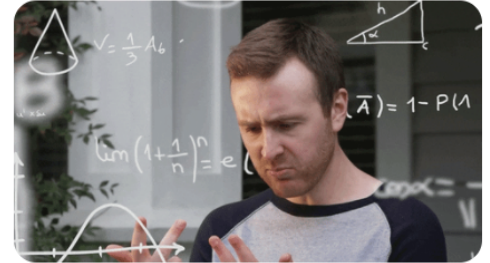
9 responses • 0 views • 0 comments • 0 hours of engagement

Follow the instructions in Brightspace, and then record a video to walk me through the properties of your indicatrix and section/slice.

You'll be able to record for up to 5 minutes. Your classmates will not be able to see your video

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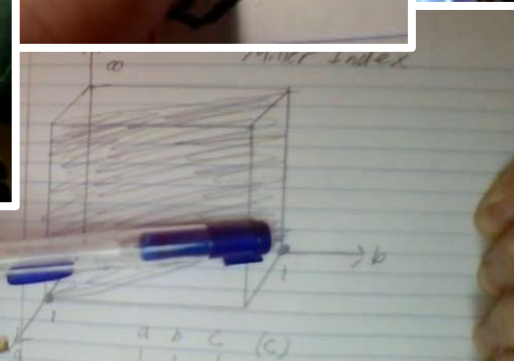
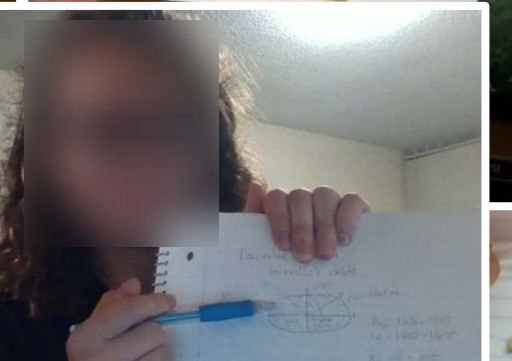
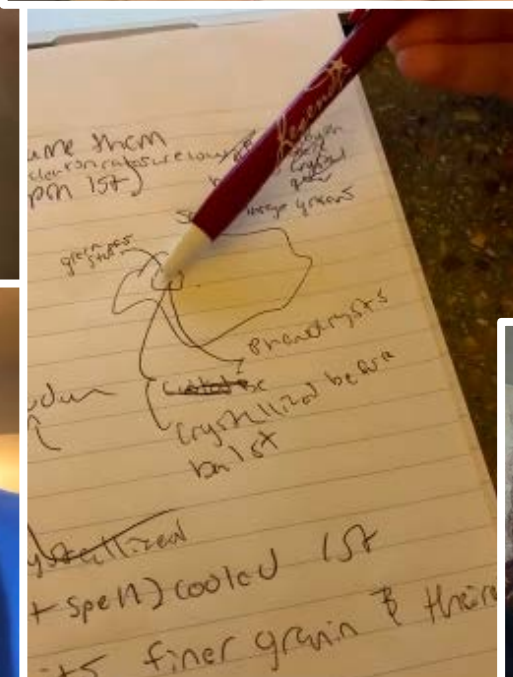
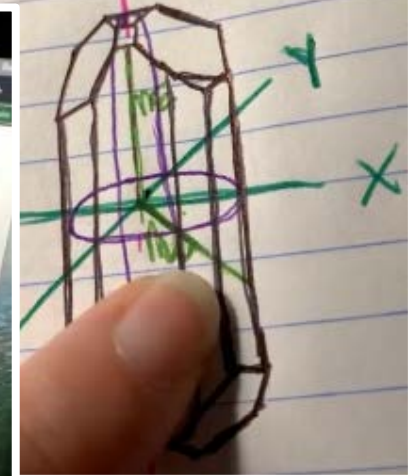
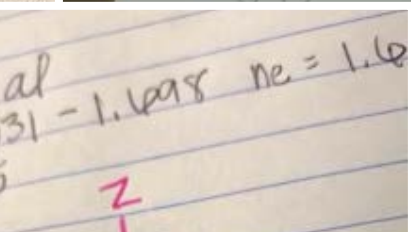
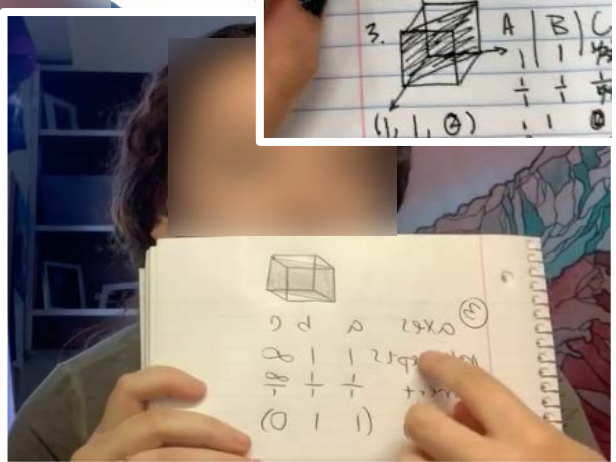
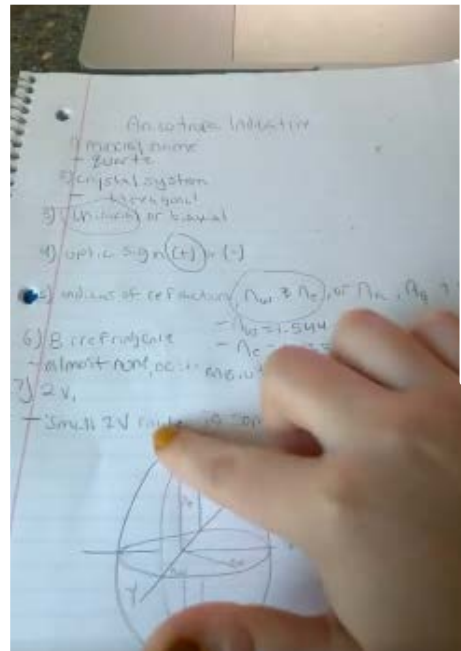
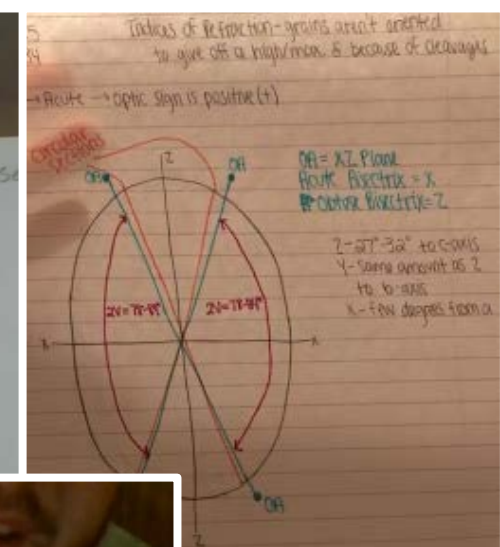
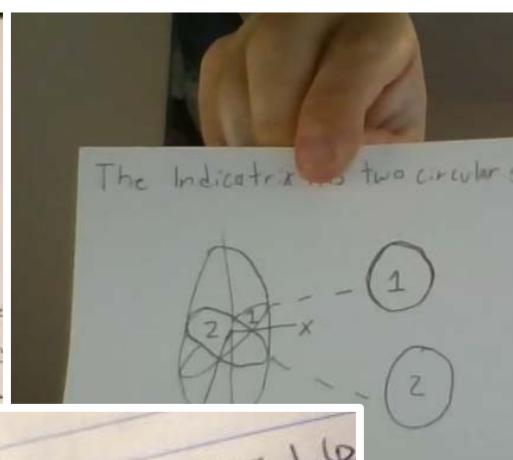
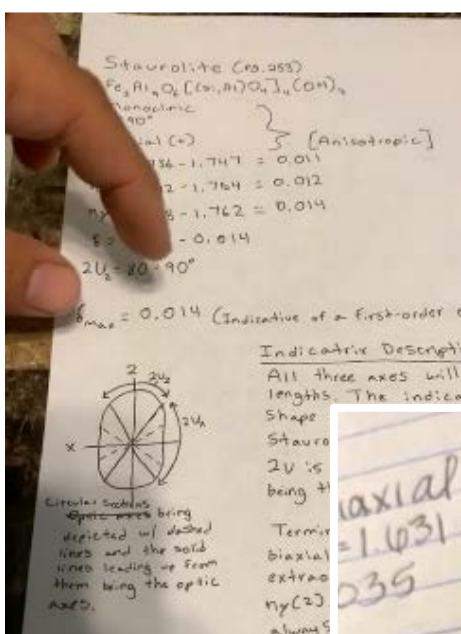
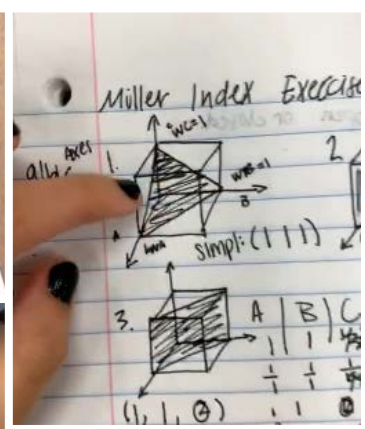
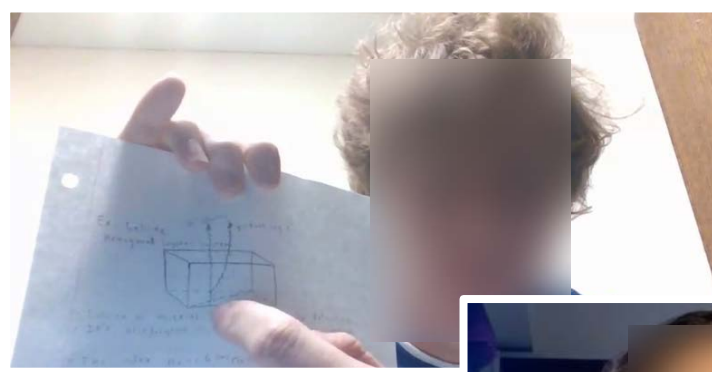
Join Code: [blurred]




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- Formative assessment
 - Address common questions, misunderstandings
 - Get to know individual students
 - Options: webcam/app, video length
 - Students choose level of privacy, comfort
 - Students self-identify limitations and questions
 - Improved preparedness and engagement
 - Transferable to other disciplines



- Time to review videos: class size, length, playback speed
- One sign-in problem; Flipgrid was responsive, not helpful.

Huge insight into individual student learning

