

Syllabus for International Volcanological Field School, White River Ash session, Summer 2024

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(note- this schedule is subject to change, but should give you a general idea of what to expect)

Day 1: July 14th or earlier: Arrive in Fairbanks. Please arrange for travel to UAF. Be prepared to arrange for your first night of lodging and transportation to and from UAF.

July 15th: Introductory lectures and prepare for the field trip (9 hours total time, includes breaks and lunch)

Location Reid Hall building at UAF

- Lecture 1- Alaskan tectonics, Wrangell Volcanic Field
- Lecture 2- Mt Churchill and the White River Ash eruption, Physical volcanology 1- Conduit dynamics, plume dynamics
- Lecture 3- Plinian style eruptions, isopach mapping, VEI determination
- Field preparation- we will go over the field gear and make sure everyone is all set! We will sort through and pack up the field food

July 16 We will meet at 8:00 am in the back of the Reid Hall building to load up the vans and start our trip. We will drive first south to Delta Junction and then east toward Tok, AK. We will stop in Tok for lunch, but then continue to the West Fork campground or Chiden on the Taylor highway, making one or two field stops on the way.

July 17 We will depart camp around 8:00 am and drive towards Dawson on the Taylor highway and visit another 2 or 3 outcrops of WRA N along the way. Camp near Dawson, YT.

July 18th: Pack up camp and depart around 8:00 am. We will drive halfway between Dawson and Whitehouse, YT on this day visiting as many outcrops along the road system as we can.

July 19th: Drive the rest of the way to Whitehouse, visiting outcrops along the way. Camp near Whitehouse.

July 20th: Drive to Lake Geek Campground and visit a few outcrops in the area. Camp there for the night.

July 21 - Continue down the road to Tok visiting outcrops in the WRA Eldbe and Northlobe along the way. Camp near Tok.

July 22- Return to Fairbanks (about a 4 hour drive) by mid day. Unpack the vans, check into the dorms, and rest and relax.

July 23 Introduction to experimental petrology. L.

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- First day - all hands safety, SOP, and protocols lecture and demonstration of methods

Safety Quiz - students must pass the safety quiz to be able to participate in the experiments

July 24 The class will split into two groups. Instructor will demonstrate how to load and solder capsules to all. While one group is working on their capsules (with IA supervision), the other group will get a semi hands on tour of the electron microprobe

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Field notebook

Safety exam- must pass to be allowed to do experiments

Isopach assignment

Make a capsule

Help load and quench one run

Help make thick section

Lab notebook

Final presentation

Notebooks 40% total, 20% each

Final presentation 30% total

Safety Exam 10%

Isopach assignment: 10%

