

Thanks for giving tours! A no-intro tour has its own challenges, but here are some tips:

Figure out in advance which group will start where, and make sure you've gotten a copy of the safety survey before beginning! I recommend carrying one of the laminated maps.

You'll have < 12 people for 40-50 minutes. After meeting them (in the lobby, unless otherwise noted), the tour leader (usually Zach) will spend ~ 5 minutes giving this intro (optional details are in parentheses):

- (all matter: you, me, the air, that chair, is made of atoms, and the central part/core of the atom is the nucleus – show marble nucleus, this is a model)
- At FRIB, we study rare radioactive nuclei that don't exist naturally on Earth.
- Short explanation of what we do:
 - We use a 400-yard-long linear accelerator to make normal (stable, boring) nuclei go half the speed of light (4 times around the Earth per second)
 - smash them hard to knock off some pieces (protons and neutrons) – imagine if I threw the marble nucleus at the wall
 - By knocking off some particles, we can create and study the rare/unique nuclei left over.
- Our new linear accelerator (that we invented, it's 10 meters underground along Wilson Rd) came online in May 2022. With it, we can make and study nuclei that no one else can, making us a world leader for rare isotope research!
- Scientists come here from all over the country and world to do research with our equipment because we can measure what they're looking for. We expect to discover over a thousand new types of nuclei (isotopes)
- Because our research is funded by the US Department of Energy Office of Science, those visiting scientists don't have to pay anything, but they must publish their results to get their discoveries out there. We are a factory that makes knowledge.
- We'll tour the research areas, though you can't go down into the accelerator tunnel – sorry!
- Important safety tips:
 - No food, drink, gum, etc... spit gum out now!
 - No photos, sorry.
 - The most dangerous thing here is tripping over something! Watch your step.
 - DON'T touch anything, especially red buttons.
 - Stay with your tour guide (adult chaperone should bring up the rear). If you become separated from the tour, find a lab phone and dial 0 (unless after hours, then dial x77305)
 - On the tour, please ask questions! You aren't expected to know this stuff.

Always focus on info that demonstrates our strengths: a world-class research lab, top-notch education because students have access, fantastic safety and operations records.

Remember to keep it *simple (no jargon or technical detail)*, these visitors may have no background and haven't seen a full introduction. They can ask questions for more detail, or if they have specific interests (e.g. engineering) you can point out relevant features.

Use your map to show them where you are, and explain why our lab is awesome!

You should have them back at the lobby (or other point of origin) on time. Please don't be late, they likely have a lot of other places to go. Speaking of which, out of everything they see on campus, I want our lab to be the best. Make it happen.

Thanks, zach