Lukas's Rules for the Research Road

All problems and criticisms should be accompanied by a proposed solution.

Communication

The cleaner your graph, the more you've said; turn off everything you don't critically need.

Share insights, progress, problem solutions, and clever ideas frequently in email.

Don't expect others to use (Slack, IM, phone calls). Email is the lingua franca.

Regular check-in meetings are vital as long as kept succinct; be succinct.

Make sure you're talking with team members directly, not just the PI.

Label your axes meaningfully, with units, every time.

If the details don't matter, don't go into them.

If the details do matter, go into only the ones that do.

New ideas are to be first explored without criticism, then see the First Rule.

Conduct

If you feel lost, frustrated, disengaged, discouraged, or disliked… tell me immediately.

Have/share an opinion on everything the team's doing; your voice is needed.

Don't be afraid of anything new; give them a sincere try first.

Treat every team member as a person you're trying to impress.

Be honest with your time estimates and availability.

Offer help whenever you realize you actually can.

Practice

Code compatibility with Python 3.x. Period.

Keep scope small: achieve the goal, then go beyond.

Creating an object/class requires a small proposal justifying why.

Challenge yourself to grow: learn better coding, explore new tools.

If you do something twice, make it a proper script. Today.

If a function is used in two programs, it needs to be a library. Today.

If you're swamped and can't complete something, tell the team right away.

Write your code for other people to use; you'll need it just as much down the road.

Utilize unit tests and good comments even in research code; it speeds you up in the end.

Make regular slides to document progress, organize your thoughts, and communicate clearly.

If you're stuck, try to solve it yourself. If you're still stuck after ~30 minutes, ask for help.

If you disagree with any of these rules, see the First Rule.