Today:
Last day before no ability to redo lab notebooks for correcting early lab notebook check-in (still grade this for final though)

Good/Bad Graphs
Bring in examples of good and bad graphs from a paper. I don't need the whole paper. Discuss why you think they are good or bad. DO NOT just google looking for good and bad graphs. I want YOU to practice recognizing what makes a graph good or bad-- not someone else. It's ok if we disagree on what is good or bad.

Date	293 Topic	Homework (with goals color)
18-Aug	Pre-Surveys; What is this Class About?	Partner/Scheduling Info
20-Aug	Distinguishing Types of Magnetism	Reading 1 on Perusall
25-Aug	Holcomb Group Discovery	Reading 2 on Perusall
27-Aug	MOKE versus Other Magnetometry	Watch Video on Perusall
1-Sep	Project Planning: What Kinds of Magnetic Measurements	Syllabus Read/Agree
3-Sep	Finding Published Papers Relevant to Your Project	Bring a Related Paper to Class
8-Sep	Reading and Evaluating Papers	
10-Sep	Best Practices with Lab Notebooks 50% after Oct 22	University Safety Requirement
15-Sep	MOKE Hands-On Demonstration	
17-Sep	VSM Hands-On Demonstration 50% after Oct 13	Important Papers. Why? (2-5)
22-Sep	How to Give Peer Feedback and Group Project Planning	
24-Sep	Planning Group Oral Reports and Peer Grading	Mini Reports (in class)
29-Sep	Group Project Planning and Refinement	Quality Reading on Perusall
1-Oct	Assessing the Quality of Materials 50% after Oct 13	Project Proposal
6-Oct	Best Practices with Graphing 50% after Oct 22	Good/Bad Graphs
8-Oct	Fall Break (No Class)	
13-Oct	Introduction to Excel: Spreadsheets, Graphing and Fitting	
15-Oct	Understanding and Processing Your Data	Lab Notebook Check-In
20-Oct	Building a Story with Your Data When It Isn't Obvious	
22-Oct	Check-In and How Are Materials Grown	
27-Oct	How to Give a Good Talk	Last Day to Allow Redos
29-Oct	Peer Evaluation of Lab Notebooks (Bring Notebooks)	Last Notebook Redo Day
3-Nov	Election Day (Vote If You Can)	
5-Nov	Project Speed Dating: Share Your Project with Others	Graphs of Your Data 5% Bonus
10-Nov	Time for groups to Discuss Presentation/Data Planning	
12-Nov	10-15 Min Group Presentations FeS/LSMO	Presentations No Bonus
17-Nov	Rest	Presentations No Bonus
19-Nov	How to Write a Good Abstract	
1-Dec	Ask Your Final Questions of Instructor, Partners or Class	5% on time bonus
3-Dec	Discussion of Research and Scholarship Opportunities	Abstract & Notebook



Mikel B. Holcomb

Do we want time to plan with groups?

Sample	Availability
LSMO	Completed
FeS/FeTe (altermagnets?)	Completed/Machine down (need backup)
Fe thin film	Completed
Topological insulator CrTe	Completed

Groups

- Oct. 5, Monday 4pm: Ryan, Gavin, Alp **Completed**
- ???, Tues. 10:15am: Evan, Jeffrey, Austin helium lost

Hope VSM fixed soon, MOKE, analyze other group's data (FeS/LSMO)

- Oct. 16, Friday 5pm: Melissa, Shelby, Leeam **Completed**
- Oct. 20, Tuesday 4pm: Bryce and Tyler **Completed**
- Oct. 23, Friday 1:30pm: Nickolai and Durham **Completed**

How to Make and Deliver a Good Presentation

Mikel B. Holcomb

October 27, 2026

I've done a common minor mistake here; let's see if you notice it.

A flashy title slide makes a good first impression. Important. Your later slides don't have to look different, but it looks cool.

How to Make and Deliver a Good Presentation

Mikel B. Holcomb

Disclaimer: I have stolen most of this presentation from Professor Ned Flagg.

October 27, 2026

(Including a date is an easy way to look prepared for this talk in particular, as long as you remember to change it!)

A footer like this one helps people remember who and where you are!

Title as First Impression (Talk/Paper)

	Far below threshold (1)	Below the threshold (2)	Meets the threshold (3)	Exceeds the threshold (4)
Title Effectiveness	Title is unrelated to the research or too vague to provide useful information (e.g. magnetization versus field measurements)	Title is present but too broad, overly generic, or unclear in its connection to the project. It may include filler words or lack specificity.	Title is relevant, mostly clear, and communicates the general topic or purpose of the research.	Title is concise, specific, and clearly reflects both the purpose and scope of the research. It is informative and attention-grabbing without exaggeration.

- Title is first impression if looking at a paper or conference talk (or lecture slide)
- 1 of 4 points: You don't want it to be too vague. (e.g. VSM studies of magnetic thin films)
- The purpose of your work should at least be hinted at in the title
- Ex of mine: Effects of oxygen modification on the structural and magnetic properties of highly epitaxial $La_{0.7}Sr_{0.3}MnO_3$ (LSMO) thin films

November 12 & 17
FeS and LSMO groups on Nov. 12

- 10-15 minute talks
- Your group can but doesn't have to split up who talks. You can decide how you think that would work best. (Though, ideally everyone is helping with something, such as graphs/visuals/background.)
- I have a special job for any non-speakers

If you aren't speaking, you should be able to focus better on giving feedback. Though everyone welcome to give feedback.

- Giving feedback on anything is best when given verbally (with a written reminder for the receiver who may be getting a lot of feedback at once). Might be too shy/busy. However, written feedback alone is better than no feedback.
- Giving feedback helps you more analytically evaluate your own work.
- Some things I liked about this presentation include:
- Some things I think could be improved about this presentation include:

Useful feedback for talks

- Don’t be TOO positive OR negative.
- Sure, it’s nice to hear “it’s all great!” But, do you learn anything from that? Do you know what you could improve? No.
- A better option if you really liked it: It was mostly great, but I would have liked if you explained more about X and Y.
- For not so good: I liked X and Y, but didn’t really understand A and B. (Not: Terrible!)