

# Setting the Scope for M.S. Research Projects

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Building on previous presentations by  
Andrew Goodliffe (2012)  
and Sarah Sarah Penniston-Dorland (2014)

# Session outline

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- ▶ Your goals
- ▶ Student's goals/needs
- ▶ MS considerations
- ▶ External constraints
- ▶ Personal experiences
- ▶ Your project



# What makes a successful MS project?

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- ▶ Thesis defense
- ▶ Technical proficiency/demonstration of skills
  - ▶ Writing, critical thinking, project completion
- ▶ Answering a specific question
  - ▶ e.g., Flood synchronicity in a watershed
- ▶ Timeliness: need to get it done
- ▶ Conference presentation, maybe publication
- ▶ Furthering your research agenda



# Your goals & student goals

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▶ Your goals

▶ Student's goals



## Your goals

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- ▶ What are the needs of your research program?
- ▶ How can an M.S. project feed into other aspects of your research program? Pilot data?
- ▶ Can you adapt a larger-scale project into a smaller M.S. project? Can you expand a smaller project into an M.S. project?
- ▶ How many other students do you have? Where/how will your M.S. students fit in?



## Student's goals/needs

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- ▶ What are the student's goals after completing the master's (why are they doing this)?
- ▶ What are the student's skills, interests, and abilities?
- ▶ Should a master's project be published?
- ▶ What are your overall learning outcomes for an M.S. student?
- ▶ How much time can your student devote to this?
- ▶ Academic background



# MS Considerations

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- ▶ Projects can vary widely
- ▶ Technical proficiency/demonstration of skills vs. furthering science
- ▶ Writing skills and commitment
- ▶ Student's other commitments
- ▶ Scale of theses in your department



# Personal experiences

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- ▶ **My experiences**
  - ▶ Have a specific question for student to answer
  - ▶ Manageable expectations
  - ▶ Regular meetings (ideally weekly)
  - ▶ Periodic meetings with committee also important
  - ▶ Clear expectations from you and your student
    - ▶ For example, when will drafts be returned?
  - ▶ Timelines and regular updates



# Design your own M.S project

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- ▶ Goals
- ▶ Funding?
- ▶ Amount of time? Summer required?
- ▶ Logistics: Travel? Equipment? Lab?
- ▶ Previous skills required?
- ▶ Other?

