Why writing?

- Writing to learn
- Teaching best practices of disciplinary conventions in writing
- Getting students more familiar & comfortable with disciplinary literature
- Helping students get comfortable with writing to clearly express what they know
- Assessing what students know & understand
- QEP
Freshman writing

- **ENG111 & 112**
  - Essays, then research writing
  - Moving into discipline-specific writing in ENG112

- Freshman-level writing courses must work with what students have learned in ENG
  - Sequence and timing is important
Sequencing of writing courses

- In freshman-level courses
  - Smaller assignments, especially in fall semester
  - In-class writing
- Intermediate courses
  - Assignments can be more significant in size and complexity
  - Students have more familiarity with accessing research literature
- Capstone courses
  - Culmination of both science & writing learning
Examples of assignments

- Informal writing
- Class notes
- Essay answers for exam questions
- Lab reports
- Annotated bibliographies
- Review papers
- Critiques
- Research proposals
- Resumes, CV and portfolios.
Helping students see writing as a process, not a product

- Developing ideas, brainstorming
- Library research, literacy education
- Drafts
- Peer review
- Revisions
Mars Hill University’s Writing in the Disciplines, WID, classes

- 2 assignments each semester
- Students turn in draft form
  - Reviewed and critiqued by a peer (writing fellow)
- Students have time to edit draft, then turn in final paper for grading
- Faculty receive feedback from writing fellow
  - As well as training before teaching 1st WID course
- The hope is that faculty receive better writing from students, and students receive helpful feedback before turning in work for a grade
Writing to learn

An informal writing assignment
Science instructors seldom use informal writing in which the grammar and writing style are not necessarily graded.

Such assignments may be useful:

1. in making students think more deeply about concepts, and
2. in assessing whether or not students understand certain concepts.
Writing to learn

Writing in class can compete with the ability to cover necessary concepts.

Grading writing assignments may be prohibitively time consuming.
These problems may be reduced by
1. “Flipping” your course,
2. Assigning writing as homework, possibly as part of a journal or as class notes,
3. Randomly collecting and reviewing assignments, or
Writing to learn

I include the following assignment as a required part of evaluated class notes. My class note assignment is included in your handout.

I collect notes randomly twice per semester.

I do not correct or evaluate the grammar or writing style of class notes.
Writing to learn

Your Turn

Pretend that you are an undergraduate science student.
Writing to learn

Please arrange yourselves into groups (tables) by specialty – biology, chemistry, geology, physics, etc.
Writing to learn

Working individually please take 4 to 5 minutes to write a paragraph explaining one of the following concepts

1. The difference between a gene and allele,
2. The difference between a compound and a molecule,
3. The difference between heat and temperature, or
4. The difference between an anticline and a syncline.
Writing to learn

Your paragraphs should be written for an audience of your colleagues (undergraduate science students)
Please swap your paragraph with a colleague (or colleagues) at your table and take 3-4 minutes to evaluate

1. the accuracy of each other’s explanation,
2. the clarity of each other’s explanation.
Writing to learn

Please return the paragraphs to their author’s and take 2-3 minutes to discuss the evaluations.
As a table please take 3 to 4 minutes to discuss the following question:

1. Did this assignment make you think more deeply about the concept you wrote about?

Your table will be asked to summarize your discussion for us all.
Writing to learn

Please take 5 minutes to brain storm ideas for improving and implementing this or similar assignments.

Your table will be asked to summarize your discussion for us all.
After the intro courses students have acquired enough knowledge to understand and thus write more complex papers. Sequenced writing assignments are still necessary so that students build on previous knowledge and are not expected to know how to do everything at once.

- Takes cooperation within the department to assure they are getting some writing in all courses from Freshman to Senior year.
Learning to Write

Sequenced Writing Assignments (Examples from our Chemistry Program)

• Assignment in General Chemistry: Students learn how to find peer reviewed journals in library
• Organic Chemistry I: Students find a journal article and read it with guided questions to answer; also write lab reports
• Organic Chemistry II: Annotated Bibliography
• Analytical, Inorganic, etc: Literature reviews, critiques, etc
• Junior Seminar: Proposal
• Capstone: Senior Research Paper
Examples of Formal Writing Assignments

Lab Reports
• Teach writing within the specific disciplines

Annotated Bibliographies
• Teach students how to pick a topic, find primary and secondary sources, read those articles and start to understand and analyze them

Research Articles
• Teach students to read scientific articles more in depth and write a paper on what they have learned

Critiques
• Teach students to read, better understand, and analyze research articles
Example Writing Assignments

Take about 5 minutes to look at the example writing assignments you were presented.

Do you currently have any assignments like these in your courses? Could you implement similar assignments in your courses?

Any questions or suggestions about these assignments?
In your groups, take some time and develop a writing assignment that you might implement in your classes. You should use the following questions to guide you. After completing the assignment each small group will share your assignment with the collective group.
Your Next Task

Which course (what level of student) is this assignment for?
Is it for in class or out of class?
Is it a formal or informal assignment?
Will it have drafts or just one submission?
How will you grade it (letter grade, check/minus?)
How does it fit into the overall goals of the course?

- Is it a “writing to learn” or “learning to write” assignment?
Writing in the Sciences

Questions