



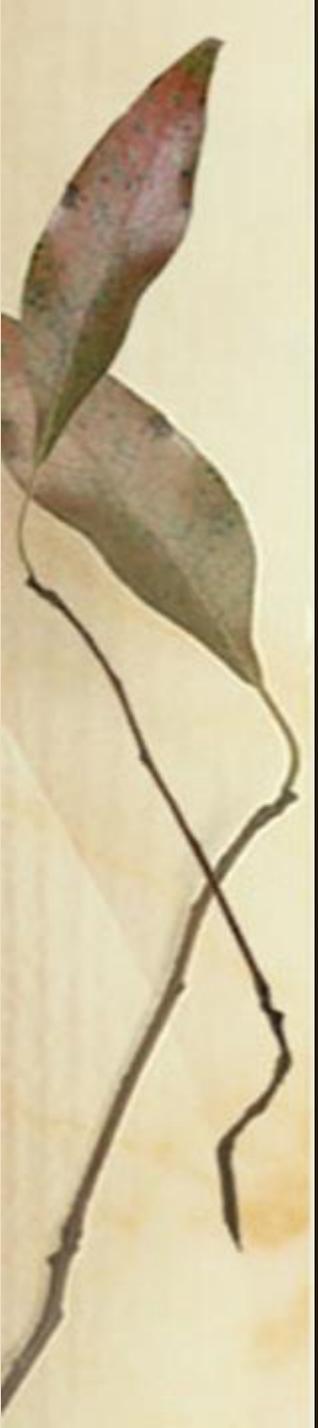
Betsy's Flip

Low-Tech Flip for STAT 1350



Betsy's Flip

- Key Features
 - **Low-Tech** – Does not require a computer lab.
 - **Discussion Questions** – help promote active reading.
 - **Focus on Problem areas** – students come to class better prepared, so less lecture is needed on basic concepts and more can be spent on problem areas.
 - **Collaborative Activities** – less time spent lecturing allows students to work together in class on activities and get hands-on practice with problems



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- **Discussion Questions**

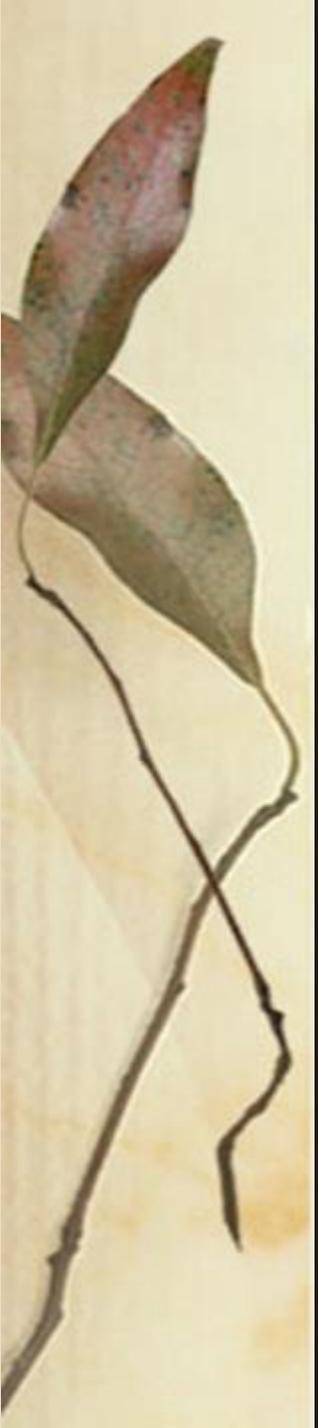
- Students prepare answers to questions (as much as possible) before coming to class
- Exposure to the concepts before class reduces lecture time restating definitions and simple formulas.
- Questions can target bullet points, vocabulary, and key procedures.
- More computational topics can introduce easy versions of new problems or review old material needed in the new section.



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- **Discussion Questions**

- In class, questions can operate like guided notes for students.
- Number of questions per day varies by topic, but even a small number is better than skipping. Keep students in the habit.
- Translates easily to web or blended sections as these can be worked on by the class in the discussion board, and is a quick way to get through the material efficiently.



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- **Collaborative Activities**

- Stat 1350 comes with “Lab Activities”, a selection of which are recommended to be done in class.
- The reduced lecture time allows for more of these activities to be completed during class time.
- I've added additional ones that focus on problem areas. Some they work on in groups, some we work on as a class, or some combination.
- Graded by targeting specific problems students tend to get wrong to encourage asking questions. Students who miss class are graded more carefully.



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- **Problem Areas**

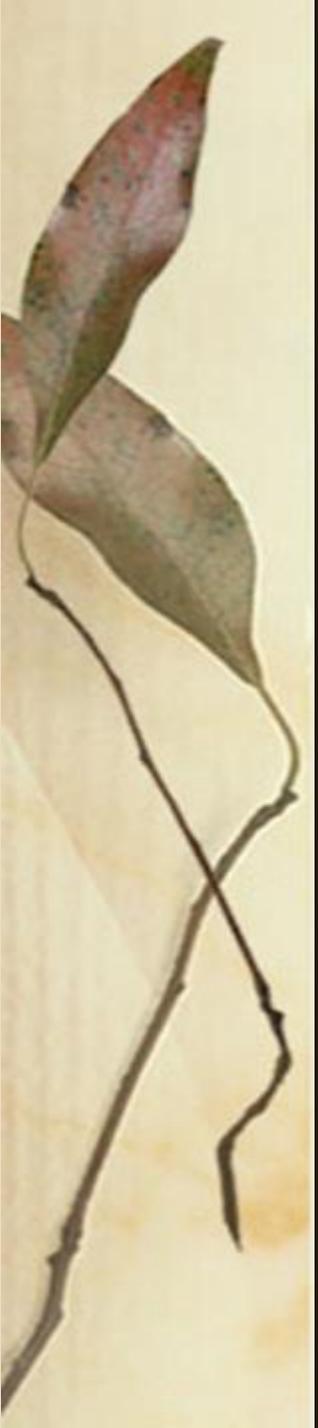
- Additional worked examples and activities focus on commonly missed areas.

- **Quizzes**

- Focuses on comparing and contrasting related concepts
- Covers problem types commonly missed on exams

- **Homework**

- Not eliminated, but modest to give students a chance to work problems on their own before quizzes and tests.



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- This started out as a Stat 1350 thing, but it works with other classes too. So far I've tried it with
 - Math 1030
 - Math 1116
 - Stat 2470