Scribing lectures is an essential part of the course as your contributions are incorporated into the course textbook each year. While the current text is quite mature in some sections, needing only minor edits, other sections may require more extensive work or may be missing altogether as the course contents change.

1 Requirements

Each of you will scribe one lecture which corresponds roughly to one chapter of the textbook. You will edit source files in a Dropbox directory which we will share with you to complete your task. The specifics will depend on the state of the current notes. Your goal is to make the notes a more useful resource both for your current classmates and for future students.

By 10PM, 6 days after the lecture you scribed, submit a short response on Stellar detailing:

1. What changes did you make to the notes from previous years?
2. What did you spend the most time on?
3. What materials did you use as sources of information (slides/audio/transcripts/recitation notes/outside references)?
4. If there were multiple scribes, how did you divide up the work?

2 Guidelines

2.1 Before the lecture

Before the lecture, contact the course staff to get access to the book source code on Dropbox. You should carefully review the chapter that you will be improving, as well as past lecture slides and audiovisual material. Some questions to think about are:

- Is the background and motivation for the problem we are studying clearly conveyed?
- Do the sections divide the material into logical parts?
- Does the text flow and build up ideas in a logical order?
- Are figures and legends clear? Are equations and notation properly defined?
- Is current research, if mentioned, properly cited?
- Are there items marked TODO?

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*adapted from material by Anna Shcherbina (2011), Rachel Sealfon (2012), Max Wolf (2013), Abhishek Sarkar (2014), and Michal Grzadkowski (2015)*
2.2 During the lecture

As you attend lecture, you should pay particular attention to issues that the slides and existing notes don’t convey well, and to new material that is not covered in the existing notes. Some questions to think about are:

- Is any material in the lecture not covered in the notes?
- Were equations/algorithms more clearly explained during lecture than in the notes?
- Are there assumptions or exceptions to a statement that were not clear in the notes?
- Were there insightful questions or interesting digressions in the lecture?
- Were there any common misunderstandings or points of confusion?

Note that some of the material for a chapter may be covered in recitation rather than in lectures.

2.3 After the lecture

Add to or edit the text to address the issues you noted before the lecture and points you noted during the lecture as described below.

You should make sure to include in your scribe notes any new lecture material that the notes do not cover (you may want to check other chapters of the book to be sure that the material is not covered elsewhere). You should also be sure that all material in the lecture is clearly explained in your final draft, and add to the chapter any particularly insightful questions and responses that come up in lecture.

You may also decide to rework sections of the chapter for clarity, restructure the chapter to improve its flow, improve figures to make them clearer and more visually appealing, rework and expand figure legends, create or suggest additional tables or figures for the chapter, or add infoboxes containing worked example problems or summaries of recent publications.

If you are writing a new chapter, we will provide the following outline:

1. Introduction
2. (Sections for the main points of the lecture, at your discretion)
3. Current Research Directions
4. Further Reading
5. Tools and Techniques
6. Current Research Directions
7. What Have We Learned?

We expect the introduction, main points of the lecture, and “What Have We Learned?” to be covered, and relevant figures from the lecture slides included. You are welcome to write other sections, especially if you have prior knowledge or more interest in the topic.

3 How to format your scribe notes using \texttt{LaTeX}

There are many online resources for learning \texttt{LaTeX}. We recommend \url{http://en.wikibooks.org/wiki/LaTeX} as a starting point.
3.1 Layout of the book source directory

The Dropbox directory contains two subdirectories. templates/ contains macros which you do not need to modify. The 2016 directory contains one subdirectory per lecture, for example Lecture01_IntroAndOverview. Each contains the text, figures, and references for that chapter of the book. In this case, the text for the chapter is in Lecture01_IntroAndOverview.tex, the references are in Lecture01_IntroAndOverview.bib, and the figures are in the directory images/. Lecture01_IntroAndOverview_standalone.tex and a Makefile are provided for testing purposes. Other files (if any) are auxiliary files generated during the compilation of the book.

3.2 Macros you should use

We provide several pre-defined macros which you should use as appropriate.

\mainword This boldfaces the most important word in the paragraph. Please use this tag to mark the most important word in each paragraph. For example:

\mainword{important_word}
produces:

important_word

\todo This macro denotes tasks for the scribe and/or other students. The format is as follows:
\todo[Who should do this task (optional)]{Type of task (see below)}{Your instructions about what needs to be done}.

The second argument, “type of task”, should be one of the following:

1. missing: Information that is missing from the scribe notes.
2. expand: Add more information about a certain topic. Fill in an empty/ incomplete section of the notes.
3. clarify: Indicates that something in the scribe notes is confusing.
4. reference: Add a reference to the bibliography, citing the source of a piece of information.
5. incorrect: Point out erroneous/out-dated information in the scribe notes.
6. editing: Indicates a typo or a problem with formatting.

For example:
\todo[MyName]{Reference}{What is the source of this information?}
produces:

TODO: Reference @MyName: What is the source of this information?

And the more generic form:
\todo{Reference}{What is the source of this information?}
produces:

TODO: Reference @scribe: What is the source of this information?
This macro should be used to hold side-notes and digressions that were presented in lecture.

For example:
\sidenote{ This is an example of a sidenote }

produces:

**Did You Know?**  
This is an example of a sidenote

This macro should be used to hold questions and answers that came up during lecture.

For example:
\faq{What does the acronym DNA represent?}{ DNA refers to deoxyribonucleic acid}

produces:

**FAQ**

Q: What does the acronym DNA represent?

A: DNA refers to deoxyribonucleic acid

This macro is used to highlight text for emphasis.

For example:
\hilight{important text!!}

produces:

**important text!!**

This macro is used to point out a key word, which will be used in creating an index.

For example:
\keyword{Dynamic Programming}