

Instructional Manual Proposal

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1 Outline of instructional manual

1.1 Problem statement

Our group will be working on an instructional manual on how to use \LaTeX for beginners. This instructional manual will fulfill the needs of freshman math and computer science students of getting started on typesetting their assignments in \LaTeX . This skill is required of students enrolled in the required course Concepts of Mathematics (course number 21-128 and 15-151) and many classes following it. Although the TAs of this course teach \LaTeX , they do not have a standardized source to our knowledge, and the instructions are disseminated through a recitation that the TAs hold. Because of this, many students struggle to learn \LaTeX for the first time. Beyond the context of Carnegie Mellon University, this instructional manual would benefit anyone who wants to get started on using \LaTeX . We will continue researching for the scope and quality of the need within Carnegie Mellon University by asking freshman math and computer science students. We anticipate that this instructional manual will give these students an organized document that they can refer to when they are first getting started.

1.2 Audience

As hinted above, our primary audience is the freshman class in the math and computer science departments. As secondary audiences, we will keep anyone who wants to learn \LaTeX in mind. There are about 50 freshman in the math department and 50 freshman in the computer science department. All three of us have some friends in this audience group, and they would at least be willing to be involved in some user testing.

1.3 Purpose statement

The overall goal of this instructional manual is to get a total beginner to start creating basic documents in \LaTeX with math mode and basic external packages. Some of the main subtasks that we currently have in mind are

1. creating an account on v2.overleaf.com
2. modifying some basic fields in the template provided by overleaf
3. formatting mathematical expressions
4. using basic external packages

Our purpose ensures that our instructions will be nontrivial, as many students struggle to learn \LaTeX for the first time. Our purpose ensures that our instructions will be novel, since these instructions are only available through TAs at the time of writing.

2 Goals and expectations

The success of the group is the success for each of the three of us. As a group, we will deem ourselves successful if we can help even one concepts student learn \LaTeX . Cody and Tai have very similar strengths, in that they are both extremely advanced users of \LaTeX , and also have plentiful experience in teaching students, through serving as graders and teaching assistants. Ethan brings a unique perspective to the group as a beginner-level user of \LaTeX who can bring insight into what beginners struggle with. Each of us are busy which can be an obstacle, but we expect for our obstacles to be nonoverlapping, allowing at least one of us to make progress on the project at every time. If one of us misses a deadline or gives poor-quality contributions, we will cover each other and move on, with the expectation that they make it up later on.

3 Schedule

Task	Responsible Member	Reviewing Member	Due Date
Proposal	All	All	11/12
Overleaf tutorial	Ethan	Cody	11/15
Structure of a \LaTeX document	Cody	Tai	11/17
Group discussion	All	All	11/19
Basic modifications	Tai	Ethan	11/22
Formatting math	Ethan	Cody	11/24
Group discussion	All	All	11/26
External packages	Cody	Tai	11/28
Additional resources	Tai	Ethan	11/28
Group discussion	All	All	12/03
Polishing	All	All	12/05
Final Deadline	All	All	12/09