



# L<sup>A</sup>T<sub>E</sub>X Crash Course

Spring 2019  
School of Government and Public Policy  
The University of Arizona  
Room: SS 332  
February 9<sup>th</sup>, 2019  
Time: 9:00 am - 1:00 pm

## Instructor: Javier Osorio

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## Workshop Description:

This hands-on workshop is designed to introduce graduate students to the use of L<sup>A</sup>T<sub>E</sub>X editor. The short workshop will provide students with the basic tools to create academic papers and presentations in a professional way. Learning how to work on L<sup>A</sup>T<sub>E</sub>X will help student's professionalization skills as this document preparation system is the standard for scientific writing in a variety of fields. L<sup>A</sup>T<sub>E</sub>X has exceptional flexibility, capabilities, and stability for typesetting, and for including mathematical equations, as well as scientific tables and figures.

## Course Objectives:

The materials and exercises of this workshop are designed to help students develop the basic skills for writing in L<sup>A</sup>T<sub>E</sub>X . After successfully completing this workshop, students will be able to:

1. Write their own academic papers using L<sup>A</sup>T<sub>E</sub>X.
2. Develop their own academic presentation slides using L<sup>A</sup>T<sub>E</sub>X.

## Suggested Texts:

We will be primarily using a set of materials and exercises developed for this particular workshop. However, students interested in getting additional readings and resources could consult:

- George Gratzer. *Practical LaTeX*. Springer, New York, 2014.
  - Available online at the University of Arizona Library at: <https://link-springer-com.ezproxy3.library.arizona.edu/book/10.1007%2F978-3-319-06425-3>.
- George Gratzer. *Math into Latex*. Springer, New York, 2000
  - Available online at the University of Arizona Library at: <https://link-springer-com.ezproxy4.library.arizona.edu/book/10.1007%2F978-1-4612-2134-0>

- Michel Goossens, Frank Mittelbach, Chris Rowley, David Carlisle, and Johannes Braams. *The LaTeX Companion*. Pearson, Boston, 2004
  - Available online at the University of Arizona Library at: <https://learning.oreilly.com/library/view/the-latex-companion/0201362996/>
- Perhaps the most valuable resource for you to find advice, examples, and solutions for all your  $\text{\LaTeX}$  questions and needs is the web. So, when in doubt, just Google it!!!

## **Course Requirements:**

### **1. Attendance**

- This workshop is designed to be completed in four or five hours. Students are expected to attend to all workshop sessions and arrive on time.

### **2. Computer and software requirements**

- Students are required to bring their own computer to the workshop.
- There are  $\text{\LaTeX}$  compilers for both Windows and Mac. However, we will be primarily working on  $\text{\LaTeX}$  online. So, the specific Operating System of your computer is irrelevant for the purposes of this workshop.
- Before starting the workshop, students are required to open an account on Overleaf, an online  $\text{\LaTeX}$  compiler available at <https://www.overleaf.com>.
- For advanced  $\text{\LaTeX}$  use, students are required to have two additional programs installed in their computers:
  - Statistical program: R available at <https://www.rstudio.com>.
  - Citation management software: Mendeley available at <https://www.mendeley.com>. It is OK if you already use other citation management program (e.g. Zotero or EndNote). Just make sure you can export citations into BibTeX format

### **3. Mock Research Paper**

- At the end of the workshop, students are encouraged to submit a mock research paper.
- The substantive content of this research paper is not relevant for the purposes of this course. Instead, students are required to focus on the technical aspects of  $\text{\LaTeX}$  editing.
- The paper is required to include the following elements:
  - Title page including paper title, author, institution, and abstract.
  - Body of document with different sections and subsections.
  - Technical elements such as tables, figures, and equations.
  - References page.

## **Grade:**

Since this workshop is not for academic credit, there is no grade associated with it.

## **Course Policies:**

## **1. Electronic etiquette**

- Students are required to bring their own laptops.
- The use of tablets, e-readers, or cell phones is not allowed during the workshop.
- I strongly request students to refrain from checking emails, surfing the web, chatting on-line, or using their cell phones. The responsible use of technology will help us to engage more effectively in a stimulating workshop without distractions.

## **2. Academic Integrity:**

- Students are required to abide to the Code of Academic Integrity of the University.
- Code of Academic Integrity: <https://deanofstudents.arizona.edu/policies-and-codes/code-academic-integrity>
- Academic integrity sanctions: <https://deanofstudents.arizona.edu/academic-integrity/academic-integrity-sanctions>

## **3. Accessibility and Accommodations:**

- At the University of Arizona, we strive to make learning experiences as accessible as possible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, you are welcome to let me know so that we can discuss options. You are also encouraged to contact Disability Resources (520) 621-3268 to explore reasonable accommodation.
- If our class meets at a campus location: Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable.

## **4. Diversity and Inclusion:**

- In line with the University of Arizona's vision of diversity (<https://diversity.arizona.edu/>), this course will provide an environment of recognition, acceptance, and interaction of all the aspects that enrich diversity in our pursue of excellence.
- Participants in this course are strongly encouraged to move beyond recognizing diversity and inclusion as ideal or desirable goals, and actively engage in embracing, practicing, and promoting diversity and inclusion in the classroom and in their daily activities and relationships.

## **5. Non-discrimination and anti-harassment policy:**

- The University of Arizona is committed to creating and maintaining an environment free of discrimination. In support of this commitment, the University prohibits discrimination, including harassment and retaliation, based on a protected classification, including race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, or genetic information. The University encourages anyone who believes he or she has been the subject of discrimination to report the matter immediately as described in the following link: <http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy>.
- All members of the University community are responsible for participating in creating a campus environment free from all forms of prohibited discrimination and for cooperating with University officials who investigate allegations of policy violations.

## 6. Subject to Change:

- Information contained in this syllabus, other than the policies, may be subject to change as deemed appropriate by the instructor.

## Workshop Outline:

The workshop will include the following topics:

### 1. Getting started with L<sup>A</sup>T<sub>E</sub>X

- Windows or Mac
- Online

### 2. Document basics

- Preamble
- Title, author, and date
- Sections and subsections
- Text
  - Font type, size, and color
- Lists
  - Numeric lists
  - Itemized lists
- Footnotes
- Hyperlinks
- Comments

### 3. Tables and Figures

- Tables
- Figures

### 4. Equations

- Line formulas
- Floating formulas
- Greek and special characters

### 5. Importing regression results

- From R

### 6. Bibliography

- Basics
- Mendeley

### 7. Presentations

- Beamer

## Course Materials:

Workshop materials and slides will be distributed prior to the workshop.