

Preparation for Study within the Program in Survey Methodology-Masters Degree

As a newly admitted student beginning the Master of Science in Survey Methodology, you have likely viewed the details outlined on the PSM website related to course requirements (<http://psm.isr.umich.edu/master>.) The specific courses a student in the Master's program will be based on the emphasis they have selected for study (statistical science, social science or data science). There are required or core courses for each emphasis and electives will be approved through discussion with the student's faculty adviser. Flexibility in course election is allowed, although each Masters degree candidate must complete core courses, or have requirements waived.

To enhance the learning experience of every student joining the Program in Survey Methodology we strongly suggest the following for students looking for additional guidance or resources prior to the start of or during their academic program:

1. English as a second language students-

- a. Consider enrolling in the Online [Pre-Arrival Course for International Graduate Students](#). This highly-interactive four-week online course prepares students to hit the ground running in their academic program. They learn about the academic language of graduate study and research in the U.S., as well as campus culture both in and outside the classroom.
- b. Once on campus, you can explore and register for courses at the University of Michigan's [English Language Institute](#). Take as many courses as your schedule will permit to enhance your written and oral English language skills. ELI 420-Research Paper Writing comes strongly recommended from alumni of the Program in Survey Methodology.
- c. [English for Academic Purposes Workshops for Graduate Students](#) are offered through the English Language Institute each semester for international graduate students.

These interactive workshops focus on specific English writing and speaking skill graduate students must master to succeed in their academic and professional lives.

They are free!

- d. [Language resources](#) available through the English Language Institute are offered for members of the University of Michigan community who were raised or educated in a language other than English. These range from one-on-one support in the [Language Clinics](#) to free [workshops](#), and online [Self Study e-Resources](#).
- e. Practice makes perfect! Consider joining a [conversation group](#) before and after your arrival in Ann Arbor. Once on campus, the English Language Institute is one resource to explore for conversation group placement.
- f. Read (in English) [Survey Methodology, Second Edition](#), by Robert M. Groves, et al, John Wiley & Sons, 2009. This book will provide exposure to terminology and concepts that will be valuable as you begin your study of survey methodology.

2. Students with limited SAS software skills-

Comfort with SAS will be helpful as you begin your studies. While you will learn some SAS skills during coursework and will be exposed briefly to SAS during orientation, any knowledge you bring with you will be beneficial.

- a. Consider purchasing the following two publications as resources:
 - i. *The Little SAS Book: A Primer* by Lora D Delwiche and Susan J. Slaughter
 - ii. *Applied Statistics and the SAS Programming Language* by Ronald R. Cody and Jeffrey K. Smith
 - iii. *SAS and R: Data Management, Statistical Analysis, and Graphics* by Ken Kleinman and Nicholas Horton
- b. There are many SAS and other software resources available online. The following come highly recommended by staff and faculty of the Program in Survey Methodology:
 - i. **UCLA website:** <http://www.ats.ucla.edu/stat/> which offers very good SAS and other software learning online for free.
 - ii. **SAS e-learning**. Students can take 2 key classes for free and download a free learning edition of SAS. Recommended:
 - 1. SAS Programming I (free),
 - 2. SAS Programming 2 (has a cost but would be very helpful for those very motivated
 - 3. Statistics I (free).<https://support.sas.com/edu/elearning.html?ctry=us&productType=library>:
 - iii. SAS Help--Getting Started with SAS Software--Beginning Programmer. This is part of the SAS Help features and is an easy and free way to study how to program in SAS right within the program.
 - iv. **SAS University Edition (free)**
http://www.sas.com/en_us/software/university-edition.html
 - v. **The University of Michigan's Consulting for Statistics, Computing, and Analytics Research (CSCAR) Service:** <http://cscar.research.umich.edu/>

3. Students with limited R software skills-

Comfort with R will also be helpful as you begin your studies. R has become an increasingly important tool for statistical analysis and machine learning.

- a. Consider purchasing the following two publications as resources:
 - i. *R Cookbook: Proven Recipes for Data Analysis, Statistics, and Graphics* by Paul Teetor [true to its title, a “cookbook” for R code]
 - ii. *R for Data Science: Import, Tidy, Transform, Visualize and Model Data* by Hadley Wickham and Garrett Grolemund
 - iii. *SAS and R: Data Management, Statistical Analysis, and Graphics* by Ken Kleinman and Nicholas Horton
- b. There are many R resources available online. The following come highly recommended by staff and faculty of the Program in Survey Methodology:
 - i. **UCLA website:** <http://www.ats.ucla.edu/stat/> which offers very good R and other software learning online for free.
 - ii. **Online R Courses.**
 1. Coursera: R Programming (fee-based),
 2. DataCamp: Introduction to R (free, more advanced courses are fee-based)
 3. RStudio.com offers a series of free webinars on introductory topics.
 - iii. YouTube videos on various topics. Not all are of equal quality. It may be useful to focus on videos that have a large number of views.
 - iv. **The University of Michigan’s Consulting for Statistics, Computing, and Analytics Research (CSCAR) Service:** <http://cscar.research.umich.edu/>

4. Writing skills

There is a significant writing requirement that comes with enrollment in the Michigan Program in Survey Methodology. You should be prepared for the following:

- a. Expectations regarding quality of writing:
 - Writing mistakes that professors allowed at the undergraduate level are not acceptable at the graduate level, and will lead to reduced grades in your courses if they are frequent and not quickly corrected.
 - Graduate level writing should be free of grammatical errors, concise, and clear.
 - Graduate level writing demands increased scholarship to support your points adequately from the academic and professional literature.
 - Academic integrity requires that any work under your signature be your own or properly attributed to the author or authors whose work is being cited.
 - You should plan to find a “partner” or “buddy” to work with over the next two years on writing tasks, where each of you proofreads the other’s work in detail for grammatical errors and typos prior to assignments and projects being submitted.

- b. Become familiar with resources available on campus, including:
 - i. Sweetland Center for Writing (www.lsa.umich.edu/sweetland)
 - ii. Relevant Rackham events and workshops (updated regularly.) (<https://www.rackham.umich.edu/events>)

5. Code of Conduct

When students choose to accept admission to the University, they accept the rights and responsibilities of membership in the University's academic and social community. As members of the University community, students are expected to uphold its previously stated values by maintaining a high standard of conduct. Because the University establishes high standards for membership, its standards of conduct, while falling within the limits of the law, may exceed federal, state, or local requirements.

It is expected that you will be familiar with University policies and procedures, including the following:

- a. Statement of Student Rights and Responsibilities: <http://oscr.umich.edu/statement>
- b. <http://www.rackham.umich.edu/current-students/policies/academic-policies/section10>