# Hello Incoming Illinois Statistics PhD Students!

The time to begin thinking about registration for Fall 2017 is upon us.

- \* Who: You!
- \* What: Fall 2017 Registration
- \* When: August 1st August 3rd
- \* Where: Online!
- \* Why: You want to take courses!
- \* How: Student Self-Service: https://apps.uillinois.edu/selfservice/

Overview: As incoming Statistics Ph.D. students, you will have the opportunity to register for courses from August 1st - August 3rd. You should register for 3 or 4 courses which will total between 12 and 16 hours. Two mandatory Fall courses are STAT 510 and STAT 425 (Ph.D. level, the section taught by Professor Feng Liang on TR9:30am-10:50am).The remaining courses are elective.

However, if you have obtained a MS degree from a peer institution from USA or other countries, you may not have to take STAT 510 or STAT 425, please see FAQ below.

When registering, you should be aware of the requirements of your specific program.

\* Ph.D. Statistics Requirements: http://www.stat.illinois.edu/students/phd.shtml

(this may be a little outdated but some information may still be relevant)

Additionally, you should be aware of the courses offered by the Statistics department, and specifically what courses are offered in the Fall.

- \* Course Catalog: http://catalog.illinois.edu/courses-of-instruction/stat/
- \* Fall 2017 Statistics Courses: https://courses.illinois.edu/schedule/2017/fall/STAT

Note that courses numbered 420 and below should not be taken by Ph.D. students. During orientation, we will discuss what courses will be available in the Spring.

Actions you should take

- \* Register for STAT 510.
- \* Register for a section of STAT 425 (taught by Professor Feng Liang, TR9.30am-10.50am).
- \* Register for a section of an elective.
- \* (Optional) Register for a section of another elective.

\* Verify that you have registered for at least 12 hours.

# Some Information About Elective Courses

When selecting electives, you should be aware of your program of study. Good electives this semester are:

For students with less mathematical statistics experience:

- \* STAT 430 Basics of Statistical Learning
- \* STAT 430 (IS 490 section ID) Introduction to Data Science
- \* STAT 430 (INFO 490 section RB) Foundations of Data Science
- \* STAT 440 Statistical Data Management
- \* STAT 443 Professional Statistics
- \* STAT 448 Advanced Data Analysis

For students with a strong mathematical statistics math background:

- \* STAT 429 Time Series Analysis
- \* STAT 525 Computational Statistics
- \* STAT 542 Statistical Learning
- \* STAT 553 Probability and Measure I
- \* STAT 571 Multivariate Analysis

Additional details can be found in the FAQ below.

Frequently Asked Questions

Q: What if I have already taken STAT 510 or STAT 425 in a peer institution, do I have to take them again?

A: You do not have to take them in this case. For Ph.D. course requirements, the 4 courses (STAT 424, STAT 425, STAT 426, and STAT 510) can be waived with approved MS degree and passed PhD qualifying exam. Please note that all these four courses are part of qualifying exam. It is strongly recommended you check these courses out even if you have equivalent course experiences, since the material we cover might differ from what you have learned before, and the material and difficulty level are up to the instructors.

Q: What if I cannot register for the courses that I want?

A: Because Statistics courses are extremely popular, priority must be given to our students who are nearer to graduation. As a result, in your first semester, you may not be able to take exactly the courses that you would like. We will work with you to register for at least 12 hours since that is a requirement for full-time status. Additionally, in your first semester it is important to take STAT 510 and STAT 425 (Ph.D. level), so we will be as accommodating as possible in those courses. Unfortunately, beyond that, space in other courses may dictate availability.

### Q: How do I actually register?

A: Using Student Self-Service: https://apps.uillinois.edu/selfservice/ The Graduate College should have sent a communication with some details of this tool. You will want to select the Urbana-Champaign campus, then login using your Illinois credentials and select Registration & Records, then proceed from there.

Q: What time will registration start? When will it end?

A: The registration window will open at 9:00 AM on August 1st and end at 5:00 PM on August 3rd.

Q: What if I cannot register during that time? What if register during that time but want to change my registration?

A: You should try your best to register during that time. If you do not, will we still work with you to register before the semester begins. Keep in mind that most incoming Ph.D. students will register during that window, and options will likely be more limited for students registering later.

Q: What is the difference between STAT 430 (Basics of Statistical Learning) and STAT 542 (Statistical Learning)?

A: Both courses teach Statistical Learning, and cover much of the same material. STAT 542 is restricted to graduate students, while undergraduates may take STAT 430. STAT 542 often covers additional theoretical details. In general, STAT 542 moves at a faster pace and assumes a stronger theoretical ability. Both courses use R as their main programming language, however STAT 542 mostly assumes you learn the R details yourself, while STAT 430 focuses more on teaching R details.

Q: What if I need to take an ESL course as a result of EPT?

A: If after completing EPT you are required to take an ESL course, this course does count towards your full-time status. (It counts as a four hour course.) If this is the case, you could consider taking one fewer statistics course this semester. However, it is best to register during the registration window as if you will not need to take an ESL course. It is much easier to drop a course than to try to add one later.

Q: There are multiple STAT 430s? What are the differences? How do these work?

A: These are topics courses. While they are all "STAT 430," they are each a unique course. See details on each here: https://courses.illinois.edu/schedule/2017/fall/STAT/430

# \* STAT 430 Basics of Statistical Learning

\* Taught by the Statistics Department. Teaches the fundamentals of Statistical Learning, with a focus on the R programming language.

\* STAT 430 (IS 490 section ID) Introduction to Data Science

\* Taught by the Information Sciences Department. Offers a broad overview of Data Science. Introduces a number of technologies, including some work in R.

\* STAT 430 (INFO 490 section RB) Foundations of Data Science

\* Taught online by the Informatics Department. Offers a broad overview of Data Science with a strong focus on the tools in Python for working with data. Be aware, this course is only offered for 3 hours. As such, taken as a third course, it would not be sufficient to maintain full-time status. Thus, it would be more appropriate as a second elective. Despite being offered for 3 hours, it does count towards any degree requirements listed as STAT 430. (However, you would still need to complete the correct minimum total number of hours.) Also, be aware there is a follow-up course in the Spring that adds to this course by introducing machine learning in python.

#### Q: Can I take courses from other departments?

A: Yes, however it may not counts towards the Ph.D. in Statistics. It will count towards your full-time status. Note that courses outside of the Statistics department are not controlled by the Statistics department, so they may be difficult to register for.

#### Q: What about STAT 578?

A: Unfortunately, no STAT 578 is available in the Fall. The listed Bayesian course is restricted to a different program at Illinois.

Q: What courses use or teach R?

A: Many courses in the Statistics Department utilize R. This semester, those include: STAT 425, STAT 430 (Basics of Statistical Learning), STAT 430 (Introduction to Data Science), STAT 428, STAT 429, STAT 542, and STAT 571.

Q: What courses use or teach SAS?

A: Two courses in the Statistics Department utilize SAS: STAT 440 and STAT 448.

Q: What courses use or teach Python?

A: STAT 430, Foundations of Data Science

Q: Should I register for 12 hours, or 16 hours?

A: To maintain full-time status (which is required for international students) you need to register for 12 hours. If you register for 16 hours, you could drop a course you find you do not want to take, and still maintain full-time status. Registering for 20 hours in your first semester is not recommended.

Q: I have a hold on my account that prevents registration, what should I do?

A: Contact stat-office@illinois.edu ASAP.

**Contact Information** 

This information will be posted and updated at: http://publish.illinois.edu/xshao/

Questions should be directed to your academic advisor, Xiaofeng Shao: xshao@illinois.edu

If you discover issues during registration contact stat-reg@illinois.edu and CC xshao@illinois.edu