PHI 323 / MAT 306: ADVANCED LOGIC (SET THEORY) Spring 2017

	LECTURES	CLASSES
Time	MW 11^{oo}-11^{50}	
Place	2 McCosh	
Instructor	John Burgess	
Office	224 1879 Hall	
Hours	TUE 1:00-3:00	
Course Webpage	follow the link from: **www.princeton.edu/~jburgess**	
v-mail	258-4310	
e-mail	jburgess@princeton.edu	

Syllabus: Available on course webpage (see URL above).

Prerequisite: Despite the course title, PHI 312 (Intermediate Logic) is *not* presupposed. The prerequisite is to have EITHER some previous acquaintance with logic OR the quality called "mathematical maturity".

Communications: Philosophy Department offices, precept rooms, &c. are located on the first two floors of Marx Hall and the attached wing of 1879 Hall. The course OUT box (for papers being returned by the instructor) and IN box (for papers being submitted by students) are in the atrium 1879 & Marx Halls, OUT on the North (towards Nassau Street), IN on the South (towards Lake Carnegie) sides. *Do not leave anything in the OUT box or take anything from the IN box*.

Readings & Lectures: The textbook is Robert L. Vaught, *Set Theory: An Introduction*, 2nd ed. We will work through in lecture the ten chapters 1-7, 11, 8, 10, in that order, at the rate of about one chapter per week, and then through a handout, J. Burgess, *Models of Set Theory*, available in pdf format on the course webpage. Students should read chapter 9 of Vaught (which is on logic rather than set theory) on their own; one week's precept time late in the term will be devoted to it.

Classes: Precepts (officially called "classes") will meet every week, except the first, to discuss problems from the readings; after the first meeting, students will have been assigned to present problems. (Some have Hints in the back of the book.) See the syllabus for a schedule of discussion problems. Participation (which means effort, not necessarily success) will count equal to one problem set in determining final grades.

Office Hours: Students are encouraged to make use of the instructor's office hours. Regular office hours will continue to be held during reading period.

Problem sets: There will be eight. *They are to be done individually, not in groups*. See the syllabus for tentative due dates. If a need to postpone any due date arises, students will be notified by e-mail through the Blackboard system. The problems will be available for downloading on the course webpage, though only the first few sets will be posted at the beginning of the term.

Examinations: There will be no in-class midterm or final examinations, nor will the final written exercise for the course be officially a "take-home exam"; rather, it will be one last problem sets, #7 on the material in "Models of Set Theory", due on DEAN'S DATE. Because course grades have to be filed shortly after dean's date, extensive comments should not be expected on assignments due on that date.

Acknowledgments: For undergraduates, each problem set should bear the words "This paper represents my own work in accordance with University regulations," followed by the student's signature. (Note the exact wording, which is different from the honor code pledge used for in-class examinations; in particular, the word "honor" does not appear.) The relevant regulations are to be found in the University publication *Rights, Rules, and Responsibilities*, with which students should be familiar.

Lateness Penalties & Extensions: There is a grade penalty of 1 point (on a scale of 100) per weekday to a maximum of 10 (or one full letter, e.g. from A- to B-) for unexcused lateness. By University policy, when extensions are sought on medical grounds, a slip (easily obtained) from University Health Services must be presented. Extensions for foreseeable reasons (such as scheduled extra-curricular activities requiring the student to be off-campus) should be sought in advance. Note that "Dean's Date" is so called because only deans can grant extensions past that date; individual faculty may not do so on their own authority.