

# SCH 102-09: What is a Number?

Prof. Scott Sutherland

Stony Brook, Spring 2017

**About this course:** This course will examine the concept of number, beginning with the natural numbers, then expanding to other concepts (integers, rationals, ordinals and cardinals, real numbers, complex numbers, infinitesimals, ...). Along the way we will develop some focus on sets and ideas of mathematical language and proof.

## Places, Times, and People:

**Contact Info:** Math 5-112 / 631-632-7306 / [scott.sutherland@stonybrook.edu](mailto:scott.sutherland@stonybrook.edu)  
for office hours, see [www.math.stonybrook.edu/cards/sutherlands cott.html](http://www.math.stonybrook.edu/cards/sutherlands cott.html)

**Teaching Assistant:** Omar Naimi [omar.naimi@stonybrook.edu](mailto:omar.naimi@stonybrook.edu)

**Class Meets:** Mondays 10-10:53 in Physics P-122

## Webpage and weekly schedule:

Please see the schedule at [www.math.stonybrook.edu/~scott/sch102.spr17/](http://www.math.stonybrook.edu/~scott/sch102.spr17/) The most up-to-date version of [this document](#) can also be found there.

## Course Goals and Learning Objectives:

- Improve critical thinking by developing evaluative, problem-solving, and expressive skills.
- Enhance group communication skills through discussions, small-group work, presentations or debates.
- Develop intellectual curiosity and better understand the role of a student in an academic community.
- Develop an understanding of mathematical argument through an investigation of the concept of number.

## Course Requirements

- **Class participation.** Each student is expected to come to each class and participate in the discussion. There will be readings or problems to do, which must be done *before* the next class meeting.
- All students in the University Scholars program are required to fill out an end of the year survey that provides information about their involvement within the Scholars program and on campus in general. More details will be sent to the students during the semester.

**Evaluation and Grading:** SCH102 is a 1-credit, letter-graded course. Students will receive a grade of A–F, which will be based upon the following criteria:

60% Class attendance, participation and assignments

40% Presentation/project assignment

Since this is a seminar course, attendance and participation is *required* each week. You may miss one week without penalty. You are expected to check your Stony Brook email account and check the course web page and/or BlackBoard regularly.

**Email and appointments:** I am accessible via email and will respond to your emails as soon as I can. However, I may not check email continuously throughout the day (and especially not late at night) so please do not wait until the last minute to email concerns or questions. Detailed questions are best done in person, which can be during my [office hours](#) or by appointment. Please include the name of the class in the subject line and your **full name** in the body of the email. Students are encouraged to visit office hours or make an appointment with me.

**Americans with Disabilities Act:** If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, located at ECC (Educational Communications Center) Building, Room 128 (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

**Academic Integrity:** Each student must pursue his or her academic goals honestly and be held personally accountable for all submitted work. Representing another person's work as your own is **always wrong**. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at [www.stonybrook.edu/uaa/academicjudiciary/](http://www.stonybrook.edu/uaa/academicjudiciary/).

**Critical Incident Management:** Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn.

**Course Evaluation:** Each semester Stony Brook University asks students to provide feedback on their courses and instructors through an online course evaluation system. The course evaluation results are used by the individual faculty, department chairs and deans to help the faculty enhance their teaching skills and are used as part of the personnel decision for faculty promotion and tenure. No individually identifiable data are ever reported back to the university or instructor. Students who have completed previous evaluations can view all faculty ratings at: [classie-vals.stonybrook.edu/](http://classie-vals.stonybrook.edu/).

**Academic Success and Tutoring Center (ASTC):** The ASTC provides free academic support services for all undergraduate students, including one-on-one tutoring, small group tutoring, academic success coaching, and public speaking seminars. Learn more about these services and additional campus resources at [www.stonybrook.edu/tutoring](http://www.stonybrook.edu/tutoring).

The Math Learning Center also provides drop-in mathematics help by mathematics faculty and graduate students. See the information at [www.math.stonybrook.edu/MLC](http://www.math.stonybrook.edu/MLC) for hours and further details.

**SCH Events and Programs:** Getting involved and participating in campus life is an essential part of being a successful college student. SCH events provide students with an opportunity to meet other students within the Scholars Program, faculty, staff, and other campus resources. These events are designed to complement your experience here at Stony Brook, and help you make connections to the various resources available to you here. Freshman Scholars are required to attend two for-credit events per semester. Students should check the [scholars website](#) frequently to view upcoming events. You will be able to determine if an event is for-credit by clicking on it and reading the description. There are no exceptions to the event requirement, so students should plan out their events early in the semester and not wait for the last event.