Instructor: Kalle Karu  
Office: 213 Math Bldg  
Phone: 822-4787  
E-mail: karu@math.ubc.ca  
Office hours: TBD, via Zoom.

Lectures: TuTh 2-3:20, via Zoom. Lectures will be recorded and stored on Canvas.

Textbook: There is no required textbook. We will loosely follow the lecture notes by Andreas Gathmann: https://www.mathematik.uni-kl.de/~gathmann/de/alggeom.php

Course description. This course covers the basic theory of algebraic varieties. We will start with varieties in affine and projective spaces, define the sheaf of regular functions on such varieties and study morphisms between varieties. Our goal is to define and work with abstract varieties, which can then be generalized to schemes.

Homework and Exams. Homework will be assigned approximately every two weeks. There will be a total of 5-6 homework sets. The final exam will be a take-home exam similar to a longer and harder homework.

Final Grade. Your final grade will be based on homeworks and the final exam. The final exam is worth twice as much as a homework set.

Other algebraic geometry books. Here is a list of other algebraic geometry books and lecture notes.

- A list of many other online lecture notes:  
  http://www.fen.bilkent.edu.tr/~franz/LN/LN-algeo.html  
  (The notes by I. Dolgachev and J.S. Milne are very close to our course.)


- *Basic Algebraic Geometry* by I. Shafarevich.

- *Algebraic Geometry: A First Course* by J. Harris.

- *Algebraic Geometry* by R. Hartshorne.
University policies:

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. Details of the policies and how to access support are available on the UBC Senate website https://senate.ubc.ca/policies-resources-support-student-success.