

**Math 395C: Elliptic Curves and Modular Forms**  
**Spring 2022**

The course website is <https://www.uvm.edu/~cvincen1/math395.html>.

**Logistical Information:** This course counts for 3 credit hours, and meets on MWF 3:30pm-4:20pm in person in Lafayette L107 or on Teams. Please see your UVM email or Teams/Outlook calendar for meeting links if you wish to join remotely.

**Instructor Information:** Professor Christelle Vincent, available on Teams or in Innovation E445.

For content (i.e. mathematical) questions, please post your question to Campuswire. For personal matters, please reach me by email at [christelle.vincent@uvm.edu](mailto:christelle.vincent@uvm.edu) or message me on Teams.

**Textbook:** The elliptic curves part of the class will be taught out of *The Arithmetic of Elliptic Curves* by Silverman, 2nd edition. A variety of sources will be used for the part of the course on modular forms.

**Course Description and Goals:** This course will spend roughly the first half of the semester covering the theory of elliptic curves, including the theory of elliptic curves over finite fields. Then the second half will be spent covering the theory of modular forms, with an emphasis on isomorphism theorems between different spaces of modular forms (such as algebraic and analytic modular forms and modular symbols).

**Office Hours:** Office hours in this class are by appointment; please contact me by email or on Teams to set up a meeting time.

**Grading:** If you are working with me or on something closely related to the topics covered by the course, you should be completing and turning in the homework.

**Homework:** I will assign homework to help you engage with the material. All homework is optional, but if you turn in homework I will attempt to grade it to give you feedback.

**Statement on diversity:** Mathematics can be learned and enjoyed by everyone, regardless of gender, age, race, sexual orientation, or other personal characteristics. As a group we will work to create a space where we all feel welcomed and encouraged, and any actions or speech that detract from this atmosphere will not be tolerated.

In particular, we will be mindful of encouraging others to let us know if they do not already know something and do everything to support them in their learning. We will not say that things are “trivial” or “obvious.” We will offer corrections gently and with the intention of helping the other, as opposed to making ourselves feel good.