

**Math 207 Winter 2019**  
**Honors Seminar - Math and Fiber Arts**

**Instructor:** Dr. Kathy Temple

**Office:** Samuelson 221D

**Phone:** 963-1389

**E-mail:** Kathryn.Temple@cwu.edu

**Office Hours:** MTThF 1 - 1:50PM, W 2 - 2:50PM, and by appointment.

**Prerequisite:** No course pre-requisites - just a willingness to try new things, both mathematically and with fiber!

**Required Text:** None! Depending on your project, you may need to purchase or scavenge materials.

**Course Goals:** We're going to explore some of the mathematical structure behind fiber arts, and some models of mathematical objects that can be constructed using fiber arts or needlework. Along the way, we'll hopefully talk about some interesting mathematical topics! One of the goals for the 207 course in general is mathematical communication, so everyone will be doing a project and completing both an oral presentation and a written report about their project.

**Course Structure:** This course is a seminar-style course. This means that you are expected to be present and participating in class every class meeting. It also means that, later in the quarter, some of our discussions and explorations may be led by students. All students will be giving a presentation either at the last class meeting or during the final exam period for the course.

We're going to start the quarter with making sure that everyone can knit a few stitches, so that we have some common ground to start from. Then we'll spend a few weeks exploring some mathematical topics as a group. You can expect to have some work to do between class sessions. Some weeks, this may be working on a knitted (or crocheted or . . . ) object. Other weeks, this may involve some reading and answering a few discussion questions. By later in the quarter, we'll be assuming that a large part of your out-of-class time will be spent working on final projects.

**Evaluation:** Because this is a seminar-style course, your attendance and participation are very important! In particular, in order to earn at least a "C" in this course, *you must attend and actively participate in at least 8 full class meetings* out of our 10 meetings (including the final exam period). Your grade will be based on:

- Out-of-class assignments (50%);
- Final project and presentation (50%).

**Final Projects:** Everyone will be completing a final project, a presentation, and a report. I'll have a list of potential topics in a couple weeks, but you are also free to find your own topic! Project topics will need to be approved by me. Projects should involve:

- Construction of a mathematical object using some fiber art (knit, crochet, needlework, quilting, etc.);

- A report with the object describing the object and the associated mathematics;
- A presentation to the class about the object and the mathematics behind it.

If you prefer, you can work as part of a pair, although a higher level of complexity or detail will be expected. Final reports will be due at the final exam period (tentatively Tuesday, March 12 at noon). Presentations will be either during the final exam period or during the last regular class meeting (Wednesday, March 6).

**Other Information:** Central Washington University is committed to creating a learning environment that meets the needs of its diverse student body. If you anticipate or experience any barriers to learning, discuss your concerns with the instructor. Students with disabilities should contact Disability Services to discuss a range of options to removing barriers, including accommodations. Student Disability Services is located in Hogue 126. Call (509) 963-2214 or email [ds@cwu.edu](mailto:ds@cwu.edu) for more information.

I reserve the right to change the policies contained in this syllabus as dictated by developments during the quarter.

During the last week of class, you may have regular out-of-class assignments to complete. You will also be working on your final project, for presentation either during the last class meeting or during the final exam period.