

M392C: Bordism: Old and New (unique number: 56515)

Professor: Dan Freed, RLM 9.162.

Lectures: Tuesday-Thursday 2:00–3:30, RLM 12.166.

Notes: I will endeavor to write notes, but don't promise that those will keep up forever. So you should take notes during lecture!

Discussion/Office Hours: Wednesday 2:00–4:00. The course will touch on lots of mathematics. Office discussions are an excellent and more relaxed time to explore the material. I encourage you to come by! These discussions are potentially as valuable as the lectures, but that depends on your participation.

Course Web page: <http://www.ma.utexas.edu/~daf/M392C>

Texts: There is no text. I will most likely put readings on the website.

Syllabus: The rough plan is to cover some classical topics, such as Pontrjagin-Thom, signature theorem, etc. in the first part of the course. I will introduce topological field theories and cobordism categories early on. After this classical part we will move on to modern developments: the theorem of Galatius-Madsen-Tillmann-Weiss and the cobordism hypothesis.

Homework: There will be problems in the class notes, and possibly some separate problem sets. Wednesday discussions are an excellent time to explore them.