

MATH 180, Knot Theory

Prof. Abigail Thompson

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Text

The Knot Book,
By Colin Adams
American Mathematical Society
(any edition is fine)

Grading

There will be homework and and a final project. There will also be required in-class work.

Grading: homework and in-class work 50%, final project 50%

Office Hours

Office hours are Mondays 2-3:30, starting 10/9. I can also make appointments outside of the scheduled time.

Homework

HW1, Due 10/6:

Read: 1.1-1.5

Do: problems 1.2-1.7

Write up carefully and turn in: 1.6 and a proof of

Theorem: There are a countably infinite number of distinct knots.

HW2, Due 10/18:

Do: problems 1.11,1.17,1.18,1.19,1.21,1.26,1.28

Write up carefully and turn in: 1.26 and 1.28

HW3, Due 10/27:

Do: problems 3.4,3.6,3.8,3.12a,3.13

Write up carefully and turn in: 3.9, *and*

explain why $b(K\#J)$ is ``obviously" less than or equal to $b(J)+b(K)-1$.

Final Projects Schedule:

10/20: Submit the names of the members of your group.

10/23: Groups assigned to topics.

10/27: Submit the subtopics each group member proposes to write on.

11/20: Submit a draft of the slides for the presentation.

11/27: Submit drafts of subtopic write-ups.

12/1: Project presentations begin.

12/8: Project presentations finish; subtopic write-ups due.

Final Projects Presentations:

12/4: Groups 1,2,3

12/6: Groups 4,5,6

12/8: Groups 8,9,10