

## Schedule

A week-by-week breakdown of the material.

### Week 1 (09/02-09/06)

**Mon** Intro, CoCalc, start on divisibility<sup>1</sup>

**Wed** More practice writing proofs

**Fri** Divisibility (1.1-1.6)<sup>2</sup>

### Week 2 (09/09-09/13)

**Mon** Congruences (1.7-1.14)<sup>3</sup>

**Wed** Congruences and divisibility criteria (1.15-1.24)<sup>4</sup>

**Fri** Congruences and divisibility criteria continued (1.15-1.24)<sup>5</sup>

First programming assignment, due Wednesday. Look in `code/assignment1/sampleStartCode.sagews`.

### Week 3 (09/16-09/20)

**Mon** Congruences and divisibility criteria continued (1.15-1.24)<sup>6</sup>

**Wed** The division algorithm and common divisors (1.25-1.34)<sup>7</sup>

**Fri** The division algorithm and common divisors (1.25-1.34)<sup>8</sup>

### Week 4 (09/23-09/27)

**Mon** common divisors (1.29-1.34)<sup>9</sup>

**Wed** Euclidean algorithm and relatively prime numbers (1.35-1.45)

**Fri** Diophantine equations (1.46-1.58)

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<sup>1</sup>[notes/01\\_divisibility.html](#)

<sup>2</sup>[notes/02\\_more\\_divisibility.html](#)

<sup>3</sup>[notes/03\\_congruences.html](#)

<sup>4</sup>[notes/04\\_congruences\\_and\\_divisibility.html](#)

<sup>5</sup>[notes/04\\_congruences\\_and\\_divisibility.html](#)

<sup>6</sup>[notes/04\\_congruences\\_and\\_divisibility.html](#)

<sup>7</sup>[notes/05\\_division\\_algorithm.html](#)

<sup>8</sup>[notes/05\\_division\\_algorithm.html](#)

<sup>9</sup>[notes/05\\_division\\_algorithm.html](#)

**Week 5 (09/30-10/04)**

**Mon** Prime numbers and the fundamental theorem of arithmetic (2.1-2.11)

**Wed** Applications of the fundamental theorem (2.12-2.24)

**Fri** Exam 1<sup>10</sup> (Chapter 1)

**Week 6 (10/07-10/11)**

**Mon** More prime divisibility and gcd properties (2.25-2.31)

**Wed** Infinitude of primes (2.32-2.39)

**Fri** Other facts about primes (2.41-2.44, 2.48)

**Week 7 (10/14-10/18)**

**Mon** FALL BREAK Wed  
TBD

**Fri** TBD

**Week 8 (10/21-10/25)**

**Mon** TBD

**Wed** TBD

**Fri** TBD

**Week 9 (10/28-11/01)**

**Mon** TBD

**Wed** TBD

**Fri** TBD

**Week 10 (11/04-11/08)**

**Mon** TBD

**Wed** TBD

**Fri** Exam 2

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<sup>10</sup>[notes/midterm1\\_study\\_guide.html](https://www.math.umd.edu/~paulh/notes/midterm1_study_guide.html)

**Week 11 (11/11-11/15)**

**Mon** TBD

**Wed** TBD

**Fri** TBD

**Week 12 (11/18-11/22)**

**Mon** TBD

**Wed** TBD

**Fri** TBD

**Week 13 (11/25-11/29)**

**Mon** TBD

**Wed** TBD

**Fri** TBD

**Week 14 (12/02-12/06)**

**Mon** TBD

**Wed** TBD

**Fri** TBD