### 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  $(1.1-1.6)^2$ 

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

**Mon** Congruences  $(1.7-1.14)^3$ 

**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>

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

**Mon** The division algorithm and common divisors  $(1.25-1.34)^6$ 

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

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

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

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

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

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

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

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

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

#### Fri Exam 1 (Chapters 1, 2)

<sup>&</sup>lt;sup>1</sup>notes/01 divisibility.html

<sup>&</sup>lt;sup>2</sup>notes/02\_more\_divisibility.html

<sup>&</sup>lt;sup>3</sup>notes/03\_congruences.html

<sup>&</sup>lt;sup>4</sup>notes/04 congruences and divisibility.html

<sup>&</sup>lt;sup>5</sup>notes/04 congruences and divisibility.html

<sup>&</sup>lt;sup>6</sup>notes/05\_division\_algorithm.html

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

Mon TBD

Wed TBD

Fri TBD

### 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

### 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