Worksheets

Tentative Class Schedule:

Date	Topic	Reading	Worksh
1/11	The division and Euclidean algorithm	§1.1 - 1.2	Division Al (https://umich.instructure.com/cours (https://umich.instructure.com/course download_frd=1 (https://umich.instructure.com/cours (https://umich.instructure.com/course download Euclidean A (https://umich.instructure.com/cours (https://umich.instructure.com/course download_frd=1 (https://umich.instructure.com/cours (https://umich.instructure.com/course download
1/16	Fundamental Theorem of arithmetic	§1.3	FTA / Sol
1/18	Congruences	§2.1	Congruences
1/23	Arithmetic in Zn	§2.2-2.3	Arithmetic in Z
1/25	Operations	§3.1	Operations /
1/30	Ring basics	§3.2	Ring ba
2/1	Ring homomorphisms	§3.3	Ring homomorphi
2/6	More rings	§4.1	More rings /
2/8	Polynomial Rings	§4.2-4.4	Polynomial Ring
2/13	Ideals	§5.1, 5.2, 6.1	Ideals / Sc
2/15	Quotient Rings	§6.2	Quotient Rings
2/20	Quotient Rings II		Quotient Rings
2/22	Noether's first isomorphism theorem		Noether's first isomorphis

3/5	Extra day - Eisenstein's Criterion and Cyclotomic Polynomials		Eisenstein's and Cyclotomic
3/7	**Midterm!** (Exam review in class)		Practice
312	Groups	§7.1	Groups / S
3/14	Groups II	§7.2-7.3	Groups II / S
3/19	Group homomorphisms	§7.4	Group homomorph
3/21	The symmetric group	§7.5	The symmetric gr
3/26	Cosets	§8.1	Cosets / S
3/28	Group actions	**Supplemental (https://umich.instructure.com/courses/659978/files/33993573?wrap=1) ↓ (https://umich.instructure.com/courses/659978/files/33993573/download?download_frd=1)** **Reading (https://umich.instructure.com/courses/659978/files/33993573?wrap=1) ↓ (https://umich.instructure.com/courses/659978/files/33993573/download?download_frd=1)**	Group actions
4/2	Orbit stabilizers		Orbit stabilizers
4/4	Normal subgroups	§8.2	Normal subgrou
4/9	Quotient groups	§8.3	Quotient group
4/11	The first isomorphism theorem	§8.4	The first isomorphism
4/16	Elliptic Curves		Elliptic Curves
4/18	Extra day	**NOT ON EXAM**	Representati
4/23	Review		More practice
4/?	**Final Exam!**		