

## Tentative Daily Schedule for MATH 4120-141 Summer I (online) 2016

### May

Monday	Tuesday	Wednesday	Thursday	Friday
		(77:18) 11 <b>Lectures 1.1—1.3</b> Groups, Cayley graphs & lots of examples	(81:08) 12 <b>Lectures 1.4—2.1</b> Group presentations, cyclic & abelian gps	(56:64) 13 <b>Lectures 2.2—2.4</b> Dihedral, alternating, & symmetric groups
			HW 1 due	HW 2 due
(46:54) 16 <b>Lectures 3.1—3.3</b> Subgroups, cosets, & normal subgroups <i>Last day to drop</i> HW 3 due	(63:54) 17 <b>Lectures 3.4—3.5</b> Products & quotients	(62:05) 18 <b>Lectures 3.6—3.7</b> Normalizers & conjugacy classes	(47:18) 19 <b>Lecture 4.1</b> Homomorphisms & isomorphisms	64:24) 20 <b>Lectures 4.2—4.3</b> Kernels & the fundamental homom. theorem
		HW 4 due		HW 5 due
(24:47) 23 <b>Lecture 4.4</b> Finitely generated abelian groups  HW 6 due	(46:19) 24 <b>Lecture 4.5</b> The isomorphism theorems & commutators.	(TBD) 25 <b>Lectures 4.6—4.7</b> Automorphisms & semidirect products.  <b>MIDTERM 1</b>	(60:16) 26 <b>Lectures 5.1—5.2</b> Group actions & the orbit-stabilizer theorem.	(44:05) 27 <b>Lecture 5.3</b> Examples of group actions.  HW 7 due
(36:13) 30 <b>Lectures 5.4—5.5</b> Cauchy's theorem & p-groups  HW 8 due	(48:37) 31 <b>Lecture 5.6</b> The Sylow theorems	(36:34) 1 <b>Lecture 5.7</b> Finite simple groups  HW 9 due	(62:15) 2 <b>Lectures 6.1—6.2</b> Fields, extensions, & automorphisms  <i>Last drop: No W</i>	(38:21) 3 <b>Lectures 6.3</b> Polynomials and irreducibility  HW 10 due

### June

Monday	Tuesday	Wednesday	Thursday	Friday
(34:13) 6 <b>Lecture 6.4</b> Galois groups	(57:57) 7 <b>Lectures 6.5—6.6</b> The fundamental theorem of Galois theory  HW 11 due	(39:58) 8 <b>Lectures 6.7—6.8</b> Ruler & compass constructions  <b>MIDTERM 2</b>	(66:56) 9 <b>Lectures 7.1—7.2</b> Rings, ideals, quotients, & finite fields.	(45:53) 10 <b>Lecture 7.3</b> Ring homomorphisms  HW 12 due
(69:47) 13 <b>Lectures 7.4—7.5</b> Divisibility, factorization, & Euclidean rings  HW 13 due	(TBA) 14 <b>Lectures 7.6—7.7</b> Rings of fractions & the Chinese remainder thm			16  <b>FINAL EXAM</b>  17
			HW 14 due	