

**Daily Schedule for MATH 4120-141**  
Summer I (online) 2019

**May**

Monday	Tuesday	Wednesday	Thursday	Friday
	(77:18) <b>14</b> <b>Lectures 1.1—1.3</b> Groups, Cayley graphs & lots of examples	(81:08) <b>15</b> <b>Lectures 1.4—2.1</b> Group presentations, cyclic & abelian gps	(56:64) <b>16</b> <b>Lectures 2.2—2.4</b> Dihedral, alternating, & symmetric groups	(46:54) <b>17</b> <b>Lectures 3.1—3.3</b> Subgroups, cosets, & normal subgroups
		HW 1 due		HW 2 due
(63:54) <b>20</b> <b>Lectures 3.4—3.5</b> Products & quotients <i>Last day to drop</i>	(62:05) <b>21</b> <b>Lectures 3.6—3.7</b> Normalizers & conjugacy classes	(47:18) <b>22</b> <b>Lecture 4.1</b> Homomorphisms & isomorphisms	(64:24) <b>23</b> <b>Lectures 4.2—4.3</b> Kernels & the fundamental homom. theorem	(24:47) <b>24</b> <b>Lecture 4.4</b> Finitely generated abelian groups
HW 3 due		HW 4 due		HW 5 due
<b>27</b> <i>No class: Holiday</i>	(46:19) <b>28</b> <b>Lecture 4.5</b> The isomorphism theorems & commutators.	(TBD) <b>29</b> <b>Lectures 4.6—4.7</b> Automorphisms & semidirect products.	(60:16) <b>30</b> <b>Lectures 5.1—5.2</b> Group actions & the orbit-stabilizer theorem.	(44:05) <b>31</b> <b>Lecture 5.3</b> Examples of group actions.
	HW 6 due	<b>MIDTERM 1</b>		HW 7 due

**June**

Monday	Tuesday	Wednesday	Thursday	Friday
(36:13) <b>3</b> <b>Lectures 5.4—5.5</b> Cauchy's theorem & p-groups	(48:37) <b>4</b> <b>Lecture 5.6</b> The Sylow theorems	(36:34) <b>5</b> <b>Lecture 5.7</b> Finite simple groups	(62:15) <b>6</b> <b>Lectures 6.1—6.2</b> Fields, extensions, & automorphisms	(38:21) <b>7</b> <b>Lectures 6.3</b> Polynomials and irreducibility
HW 8 due		HW 9 due	<i>Last drop: No W</i>	HW 10 due
(34:13) <b>10</b> <b>Lecture 6.4</b> Galois groups	(57:57) <b>11</b> <b>Lectures 6.5—6.6</b> The fundamental theorem of Galois theory	(39:58) <b>12</b> <b>Lectures 6.7—6.8</b> Ruler & compass constructions	(66:56) <b>13</b> <b>Lectures 7.1—7.2</b> Rings, ideals, quotients, & finite fields.	(45:53) <b>14</b> <b>Lecture 7.3</b> Ring homomorphisms
	HW 11 due	<b>MIDTERM 2</b>		HW 12 due
(69:47) <b>17</b> <b>Lectures 7.4—7.5</b> Divisibility, factorization, & Euclidean rings	(TBA) <b>18</b> <b>Lectures 7.6—7.7</b> Rings of fractions & the Chinese remainder thm	<b>19</b>	<b>20</b>	
HW 13 due		<i>Study Day</i>	<b>FINAL EXAM</b>	
			HW 14 due	