

Chapter 1	
<i>Fundamentals</i>	1
1.1. Operators and C^* -algebras	1
1.2. Two density theorems	5
1.3. Ideals, quotients, and representations	10
1.4. C^* -algebras of compact operators	17
1.5. CCR and GCR algebras	22
1.6. States and the GNS construction	27
1.7. The existence of representations	31
1.8. Order and approximate units	35
Chapter 2	
<i>Multiplicity Theory</i>	40
2.1. From type I to multiplicity-free	41
2.2. Commutative C^* -algebras and normal operators	49
2.3. An application: type I von Neumann algebras	56
2.4. GCR algebras are type I	59
Chapter 3	
<i>Borel Structures</i>	61
3.1. Polish spaces	61
3.2. Borel sets and analytic sets	64
3.3. Borel spaces	69
3.4. Cross sections	74

Chapter 4	
<i>From Commutative Algebras to GCR Algebras</i>	81
4.1. The spectrum of a C^* -algebra	81
4.2. Decomposable operator algebras	88
4.3. Representations of GCR algebras	94
Bibliography	103
Index	105