

Material covered in Judson's Algebra :

Chapters 1, 2, 3, 4, 5, 6, 9, 10.

Note: Simplicity of the alternating group was not covered in depth. You are expected to know that A_n is simple for $n \geq 4$, but you do not need to know any details of the proof.

Chapter 11: Omit the isomorphism theorems. We covered everything else.

Chapter 16: Omit the isomorphism theorems. For this chapter, the class notes include many supplementary examples.

Chapter 17: We omitted the proof that $R[x]$ is a ring, and also the proof that $\gcd(p(x), q(x))$ can be written as

$$\gcd(p, q) = r(x)p(x) + s(x)q(x) \text{ for some } r, s \in R[x].$$

(Proposition 17.10).

Also omit Lemma 17.13 to Example 17.18 (so we omit Gauss' Lemma and Eisenstein's Criterion)