CHANGES MADE TO MAS220 NOTES

1. Semester 1

(1) p.7, line 5, "multiplication in $\mathbb{C}^\times$ is associative".
(2) p.11, Examples 1.5.3 and 1.5.4, added reference "from Section 1.4".
(3) p.12, following Example 1.5.8, reference to earlier examples.
(4) p.13, bottom line, correction, $|\mathrm{orb}(x)|$.
(5) p.15, lines 3 and 4, correction to $\gamma(\beta(i)) = \beta(\alpha(i))$ and $\gamma\beta = \beta\alpha$.
(6) p.16, added a few words to Examples 1.6.8 and 1.6.9.
(7) Remark added at end of Section 1.7.
(8) p.23, line 19, "they" replaced by "the atoms".
(9) p.25, more detail added in displayed equation for $f(x)g(x)$.
(10) p.29, references to definitions of field and division ring added to Example 2.8.2. Likewise in Proposition 3.1.2.
(11) p.35, near bottom, remark about γ as nearest point.
(12) p.37, "as in Example 3.2.5" added to proof of Lemma 3.3.8.
(13) p.39, proof of Proposition 3.5.1. More detail added about why 1 is a gcd. p.40, "which is the set of congruence classes $\pmod m$" added near the bottom.
(14) p.42, in Example 3.6.11,"Recall that $[a + bx]$ means the same as $\overline{a + bx}$."
(15) p.44, beginning of Section 3.8, references to Example 3.2.5 and Proposition 2.8.3 added.
(16) p.44, in proof of Proposition 3.8.1, β and γ corrected to α and β. On the next line, a few words added.

2. Semester 2

(1) p.9, a couple of extra sentences just before Theorem 1.6.4.
(2) p.16, extra sentence just after definition 1.9.1.
(3) p.17, reference for definition of a basis added.
(4) p.26, following Theorem 1.13.8, "isomorphism" replaced by "ring isomorphism".
(5) p.32, last paragraph of Section 1.15. Added a bit more on why the trace is an integer.
(6) p.40, 3 lines before displayed equations for a_0, a_m and b_m, corrected $v = \sum_{i=1}^n v_i$ to $v = \sum_{i=1}^n \alpha_i v_i$.
(7) In Propositions 2.4.10 and 2.5.10, I had to extend the condition $f(-\pi) = f(\pi)$ to all the derivatives of f, to ensure that $\frac{d}{dx}$ really maps the space to itself.