Complexity Theory
Easter 2000
Corrections to the Lecture Notes

1. On slide 7, in the definition of $f = O(g)$, it should be $f(n) \leq cg(n)$, and in the definition of $f = \Omega(g)$, read $f(n) \geq cg(n)$.
2. On slide 9, the total cost is $c(v_n, v_1) + \sum_{i=1}^{n-1} c(v_i, v_{i+1})$.
3. On slide 25, in the definition of $\mathsf{NTIME}(f(n))$, after $x \in L$ add "of length n".
4. On slide 29: $H_f \notin \mathsf{TIME}(f(\lfloor n/2 \rfloor))$, rather than $f(\lfloor n \rfloor)$.
5. On slide 42, the last example expression should read $(x_1 \vee (\neg x_1)) \wedge \mathtt{true}$.
6. On slide 55, the second line should read "Boolean expressions is NP-complete.
7. On slide 58, the third displayed formula should be:
$$\bigwedge_q \bigwedge_i (S_{i,q} \rightarrow \bigwedge_{q' \neq q} (\neg S_{i,q'})).$$
8. On slide 59, the first displayed formula should be:
$$\bigwedge_{j \leq n} T_{1,j,x_j} \wedge \bigwedge_{n<j} T_{1,j,\sqcup},$$
and the last one should be:
$$\bigwedge_i \bigwedge_j \bigwedge_\sigma \bigwedge_q (H_{i,j} \wedge S_{i,q} \wedge T_{i,j,\sigma}) \rightarrow \bigvee_\Delta (H_{i+1,j'} \wedge S_{i+1,q'} \wedge T_{i+1,j,\sigma'})$$
9. On slide 64, the second line should read "A Boolean expression ϕ in $\mathsf{3CNF}$ ...".
10. On slide 67, on the third line, Clique should be CLIQUE.
11. On slide 81, both occurrences of C should be W.