CS 330: Discrete Structure

Proofs – List of Outcomes (based on Prof. Sasaki)

1. Be able to tell if a logical argument is valid and sound.
2. Know what it means to infer propositions from rules of inference.
3. Know the relationships between an implication and its converse, contrapositive, and inverse.
4. Understand why we need proofs
5. Understand the structure of direct proofs for predicates.
6. Understand axioms as basic, primitive direct proofs.
7. Understand simple algorithms exist that can verify proofs
8. Have seen some examples of direct proofs.
9. Understand the difference between direct and indirect proofs.
10. Understand the structure of indirect proofs
11. Understand the structure of proofs by contradiction
12. Understand the structure of proofs by cases
13. Understand the structure of proofs for equivalences (proving iff statements).