

CSC 579 Spring 2023 Schedule

(R 9:40am to 10:55 Lechase 103)

week	date	topics	reading	assignments (50 pts each week)
1	Thu, Jan 12	The need for training thought	HWT Chapter 2	Basecamp Q&A
2	Thu, Jan 19	Types	PLF Types	Type soundness informal proof
3	Thu, Jan 26			
4	Thu, Feb 2	Coq Basics	LF Basics	the nine (9) 1 star exercises in the chapter
5	Thu, Feb 9	Induction	LF Induction	basic_induction, double_plus, even_S, mul_comm
6	Thu, Feb 16	Lists	LF Lists	3-star exercises
7	Thu, Feb 23	Tactics	LF Tactics	3-star exercises
8	Thu, Mar 2			
Spring Break				
9	Thu, Mar 16	Logic in Coq	LF Logic	or_distributes_over_and, dist_not_exists, dist_exists_or, In_map_iff, In_app_iff, evenb_double_conv, eqb_list. Optional: tr_rev_correct, classical_axioms
10	Thu, Mar 23			
11	Thu, Mar 30			
12	Thu, Apr 6	Inductively Defined Propositions	LF IndProp	ev_double, inversion_practice, le_exercises (3 questions), leb_iff, subsequence, exp_match_ex1, reflect_iff, eqbP_practice, nostutter_defn
13	Thu, Apr 13			
14	Thu, Apr 20	The Curry-Howard Correspondence	LF ProofObjects, Wadler CACM15, Zach 2019	eight_is_even, conj_fact, or_commut', ex_ev_Sn, equality__leibniz_equality. Rewrite using proof objects: plus_O_n, mult_0_I, Theorem thm3: forall n m o : nat, n = m -> m = o -> n = o. andb_true_elim2, plus_n_O. Optional: leibniz_equality_equality
15	Thu, Apr 27			

LF <https://softwarefoundations.cis.upenn.edu/lf-current/toc.html>
PLF <https://softwarefoundations.cis.upenn.edu/plf-current/toc.html>
HWT <https://www.gutenberg.org/files/37423/37423-h/37423-h.htm>