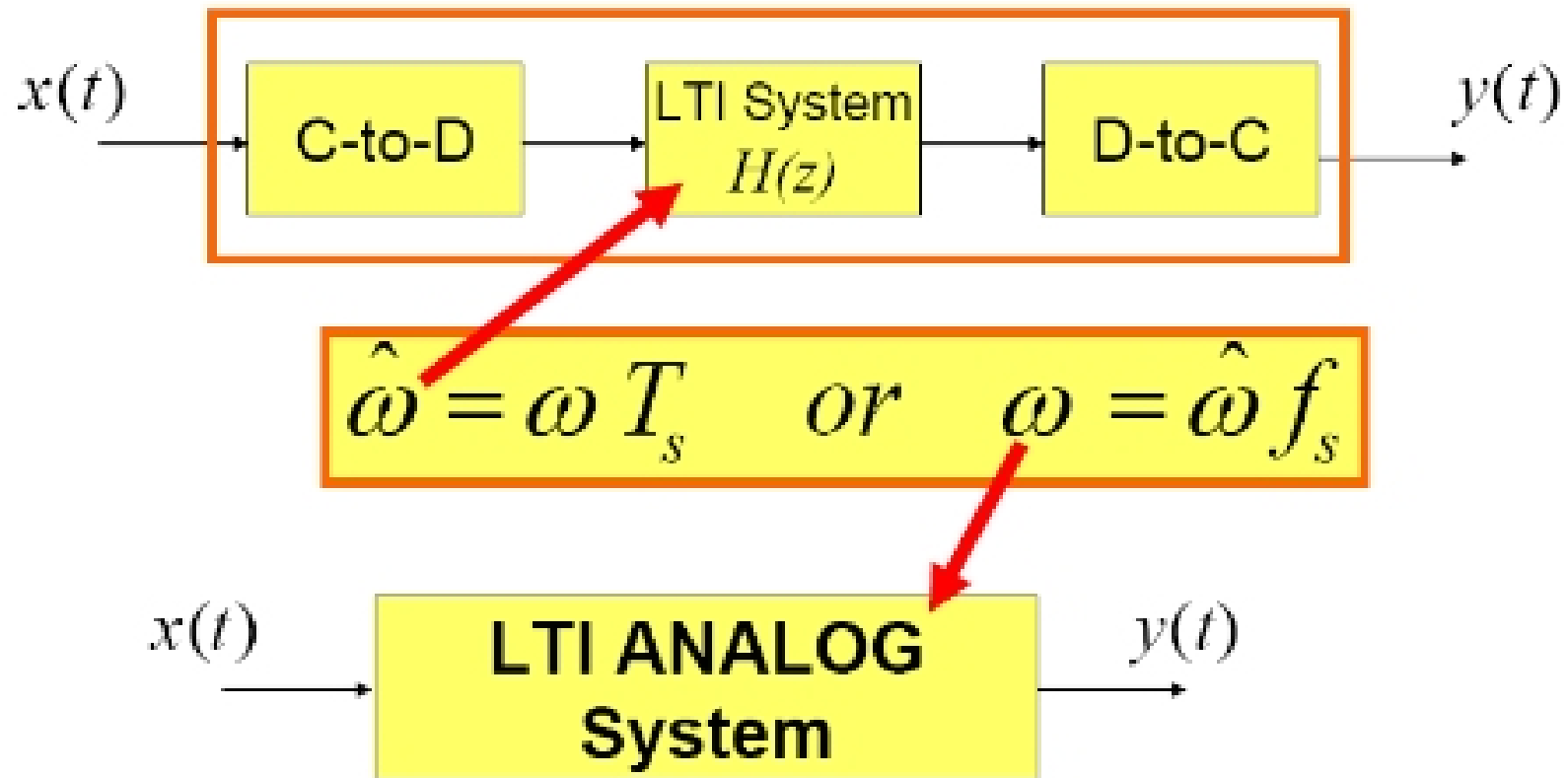


Continuous-Time Signals and LTI Systems

- Objectives
 - The Unit Impulse
 - Impulse Response of Basic LTI System
 - Evaluating Convolution Integrals
 - Properties of LTI Systems
- Reading Assignments
 - Chapter 9
 - Prepare: Chapter 10

D-T Filtering of C-T Signals



ANALOG SIGNALS $x(t)$

- INFINITE LENGTH
 - SINUSOIDS: $\sin(\omega t)$ ($t = \text{time in secs}$)
 - PERIODIC SIGNALS
 - ONE-SIDED, e.g., for $t > 0$
 - UNIT STEP: $u(t)$
- FINITE LENGTH
 - SQUARE PULSE
- IMPULSE SIGNAL: $\delta(t)$

- DISCRETE-TIME: $x[n]$ is list of numbers