

**Department of Computer Science  
University of Massachusetts Lowell  
COMP.3040 Foundations of Computer Science  
Fall 2019**

**Homework 1 [4 %]  
Handed out: 9/8/2019  
Due on 9/22/2019**

**Homework #1 – Basics + Using Latex [3 points]**

Do the following problems from Chapter 0 of the Text

0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9

Define state machine for the following

- smartphone home screen with following behaviour
  - dark when **idle**
  - any touch—display **home screen**—back to idle after timeout
  - accept pass code when pressing button
    - validate and unlock phone else flash screen
  - accept finger print
    - validate and unlock phone else flash screen
  - any other ...

**Deliverables**

- **Only latex files will be accepted—no hand written submissions please**
- **pdf must also be submitted**
- You will use submit command—please set up CS account; further instructions by email.

**Extra Credit**

- any other .... – please document

**Deadline and Late Submissions**

- The assignment is due on the date specified above at 11:59:59 PM
- Each day late will incur a penalty of 10% of the grade for the assignment; for example, if the assignment is 3 days late, the maximum grade will be 85 out of 100—15 will be subtracted from whatever grade is assigned.