**CSC 545 Computer Speech, Music and Images**

**Assignment 4: Video Player with Subtitles**

**Due Thursday, April 26, 2018**

Write a Processing program to play a video with subtitles. For full credit, the program must provide the following features:

* Play the video on program start.
* Make the canvas height taller than the video and display subtitles below the video (the video size is 640 x 272). Make sure the subtitles are large enough to read and that the color scheme ensures they are visible. You may assume that no subtitles have more than two lines.
* Toggle pause on space bar.
* Toggle reverse on ‘r’. This reverses the direction of play, regardless of current direction. Subtitles should display at the correct times even if the video is playing in reverse.
* Control the playback speed using the mouse wheel. This speeds or slows the rate of play but does not change the direction of play; rotating the wheel toward the user decreases the speed, while rotating the mouse away from the user increases the speed. Each wheel event should modify the speed, faster or slower, by .01. Enable the play speed to range from 0.1 to 2.0. Display the current rate in the bottom right corner of the canvas (1.0 is “normal” speed and is the default). Be sure the speed is visible and easy to read; it’s ok if a long subtitle occasionally overwrites the speed.

Implement your video player entirely in Processing – do not use the Java Swing library or any other library external to Processing (you’ll have to install Processing’s video library).

Name your program Asn4 and put it in your upload folder on the class server by 5 minutes after the beginning of class on the due date.

**Deliverables**

Processing program, described above

Be sure your program is well documented internally.