Design and implement a low pass *elliptic* filter to meet the following specifications:

- Sample Frequency: \(11025\) Hz
- Pass band edge: 0 to 1,700 Hz
- Pass band ripple: 0.01
- Stop band edge: 2,000 Hz to fs/2
- Stop band ripple: 0.03

These specifications lead to a sixth order elliptic filter. Implement this filter on the ARM Discovery board as second order sections.

Turn in the following:
1. Cover sheet with the assignment number (STM6), your name, the date turned in, and your filter order.
2. A signed verification sheet showing that you implemented this filter correctly. The sheet must be signed by Blandford, Randall, or Cron.
3. Your complete commented C code which implements the filter and shows the second order sections.
4. The frequency vs. amplitude plot for the filter over the whole frequency band.
5. Blow up plots of frequency vs. amplitude that show that your filter meets the specifications.
6. The MATLAB code used to design the filter and find the second order section coefficients.
Verification Sheet
EE 311 Assignment STM 6

I verify that ___________________________ implemented a low pass ____________
filter that meets the following specifications:

- Sample Frequency : 11025
- Pass band edge : 1700 Hz
- Pass band ripple : 0.01
- Stop band edge : 2000 Hz
- Stop band ripple : 0.03

Signed by Blandford, Randall, or Cron

Note any exceptions: