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```
%!-----
%! DSP HW10
%! - Create Hann Bandpass Filter and plot
%! - Create Hamming Bandstop Filter and plot
%!-----

%!-----
%! #1
%!-----
%! Enviornment
close all; clear;
coeff = load('hw10_1coeff.mat');
L = length(coeff.Num);

%! Windowing
window = hann(L).';
filter = coeff.Num .* window;

% Plot
figure()
stem(0:L-1, window)
title('Hann Window')
ylabel('Amp')
xlabel('Sample')

figure()
freqz(coeff.Num)
title('Designed bandpass Filter without Window')

figure()
freqz(filter)
title('Hann Windowed Bandpass Filter')

%!-----
%! #2
%!-----
coeff = load('coeff2.mat');

%! Window
L = length(coeff.Num);
window = hamming(L).';
filter = coeff.Num .* window;

% Plot
figure()
stem(0:L-1, window)
title('Hamming Window')
ylabel('Amp')
xlabel('Sample')

figure()
freqz(coeff.Num)
```

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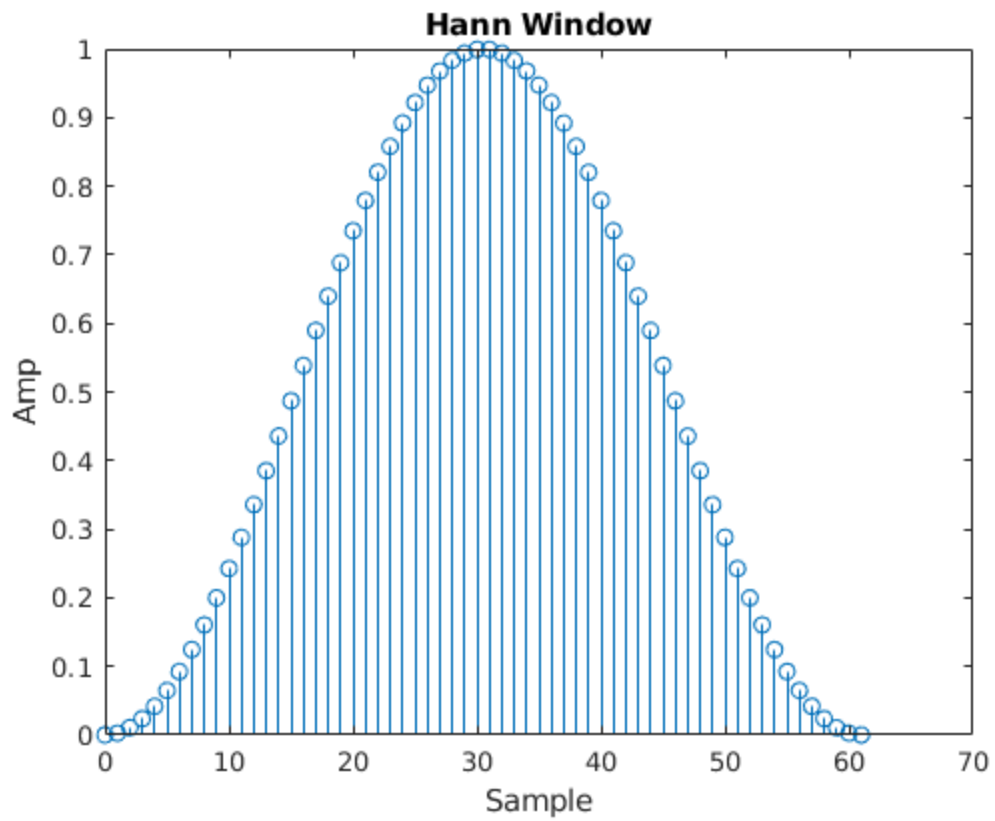
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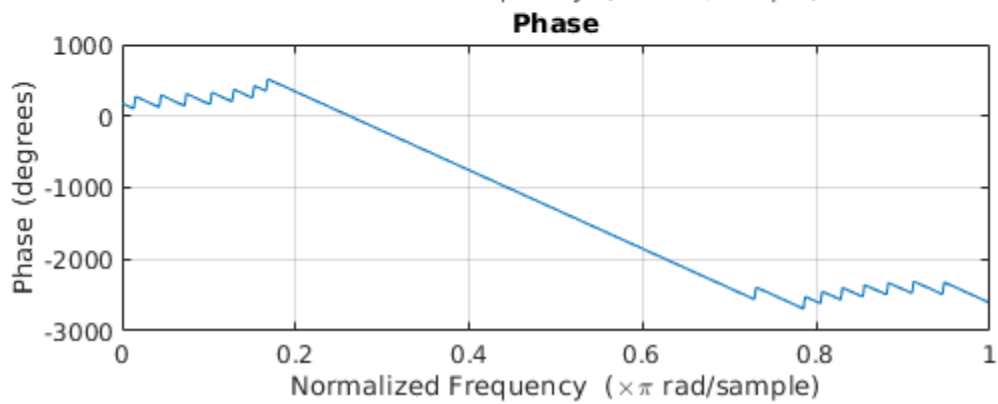
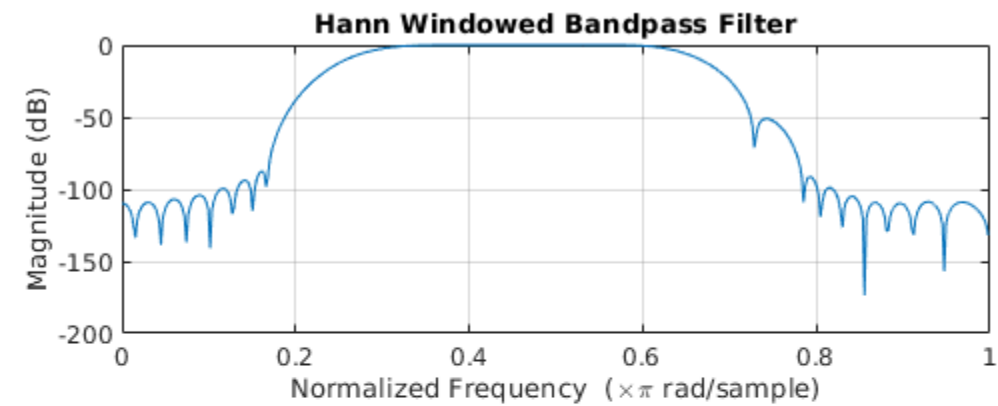
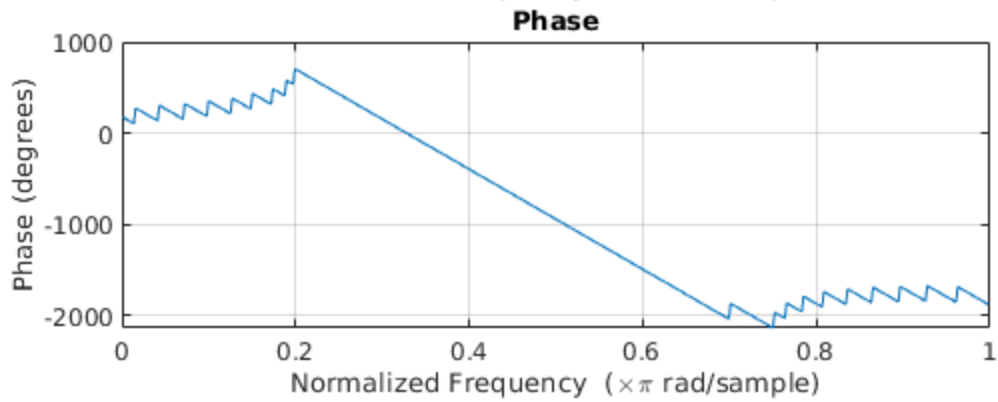
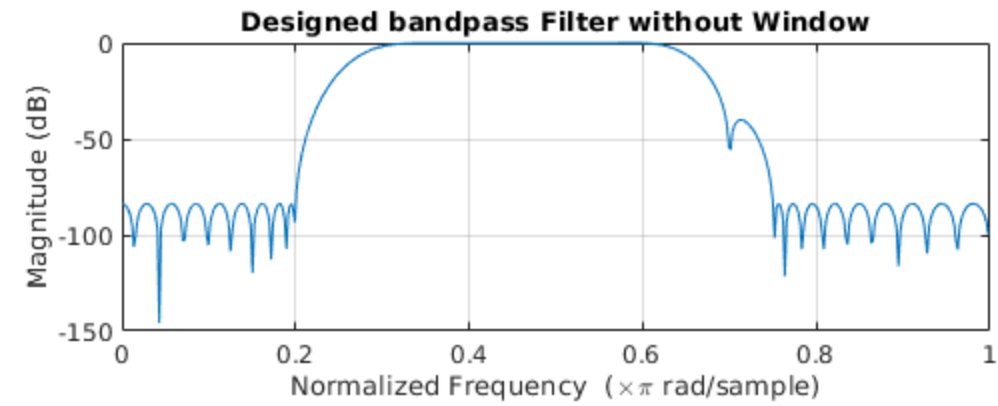
```
title('Designed Bandstop Filter without Window')
```

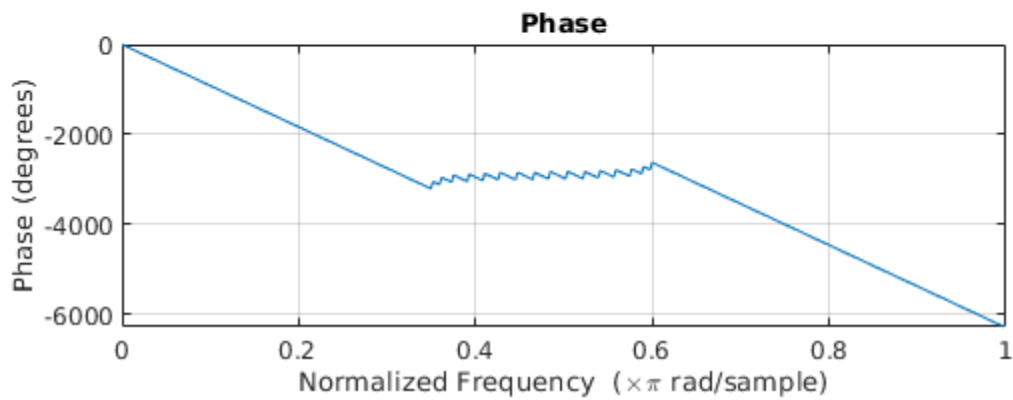
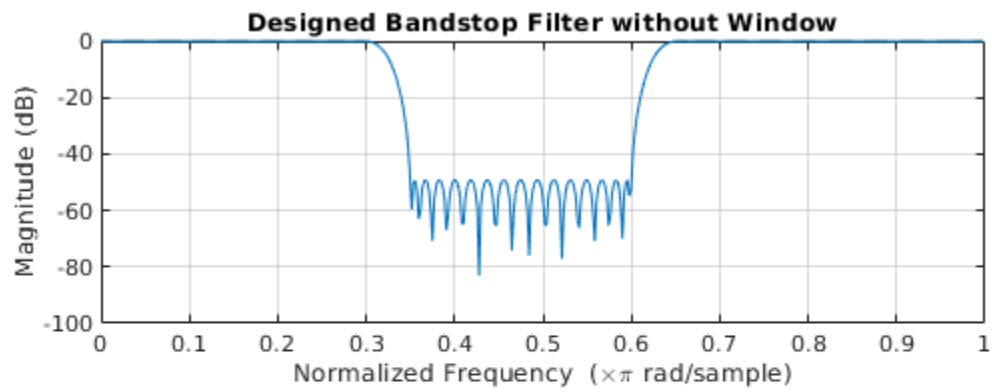
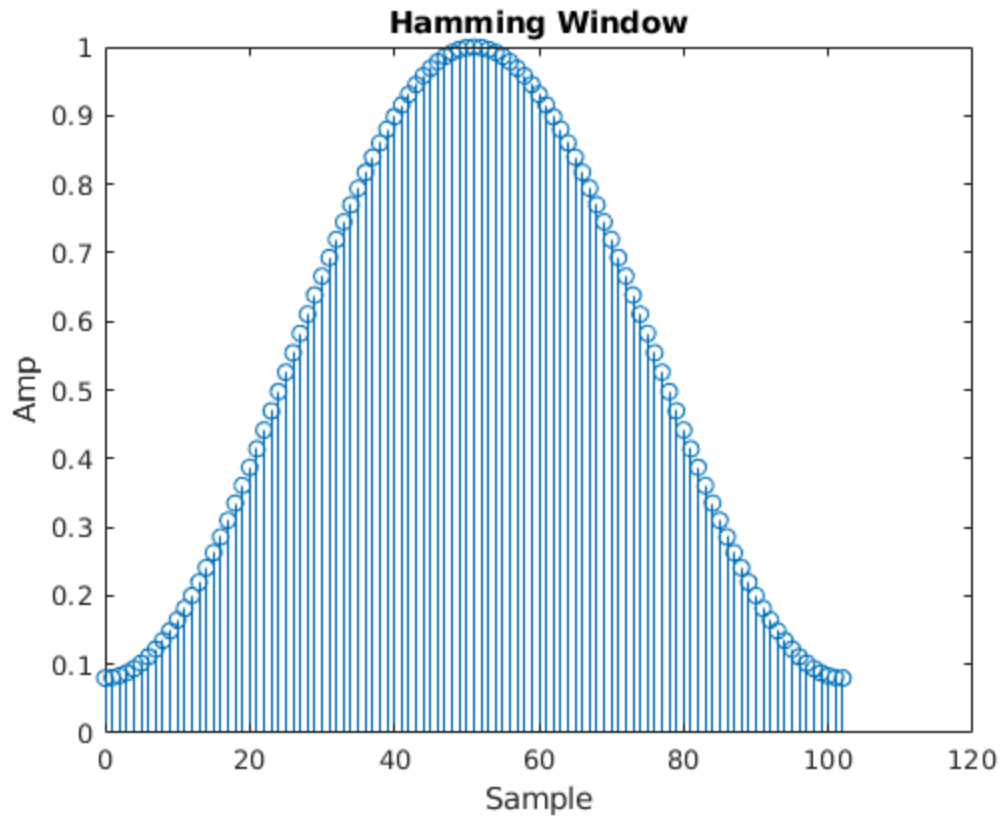
```
figure()
```

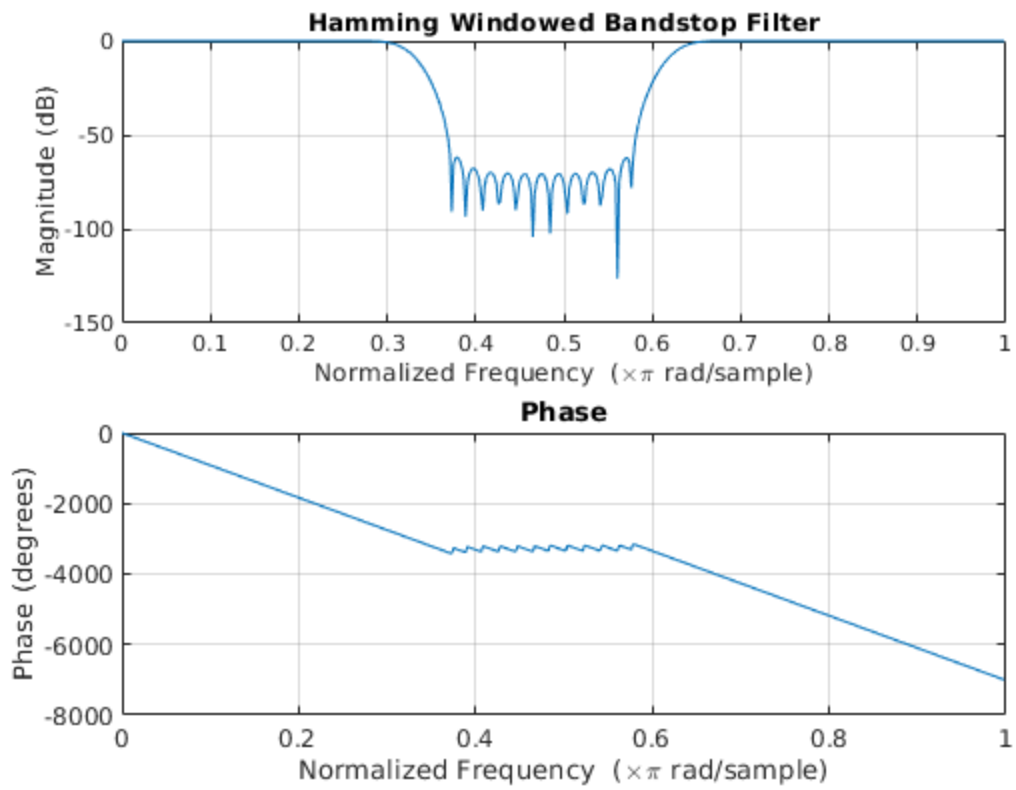
```
freqz(filter)
```

```
title('Hamming Windowed Bandstop Filter')
```









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