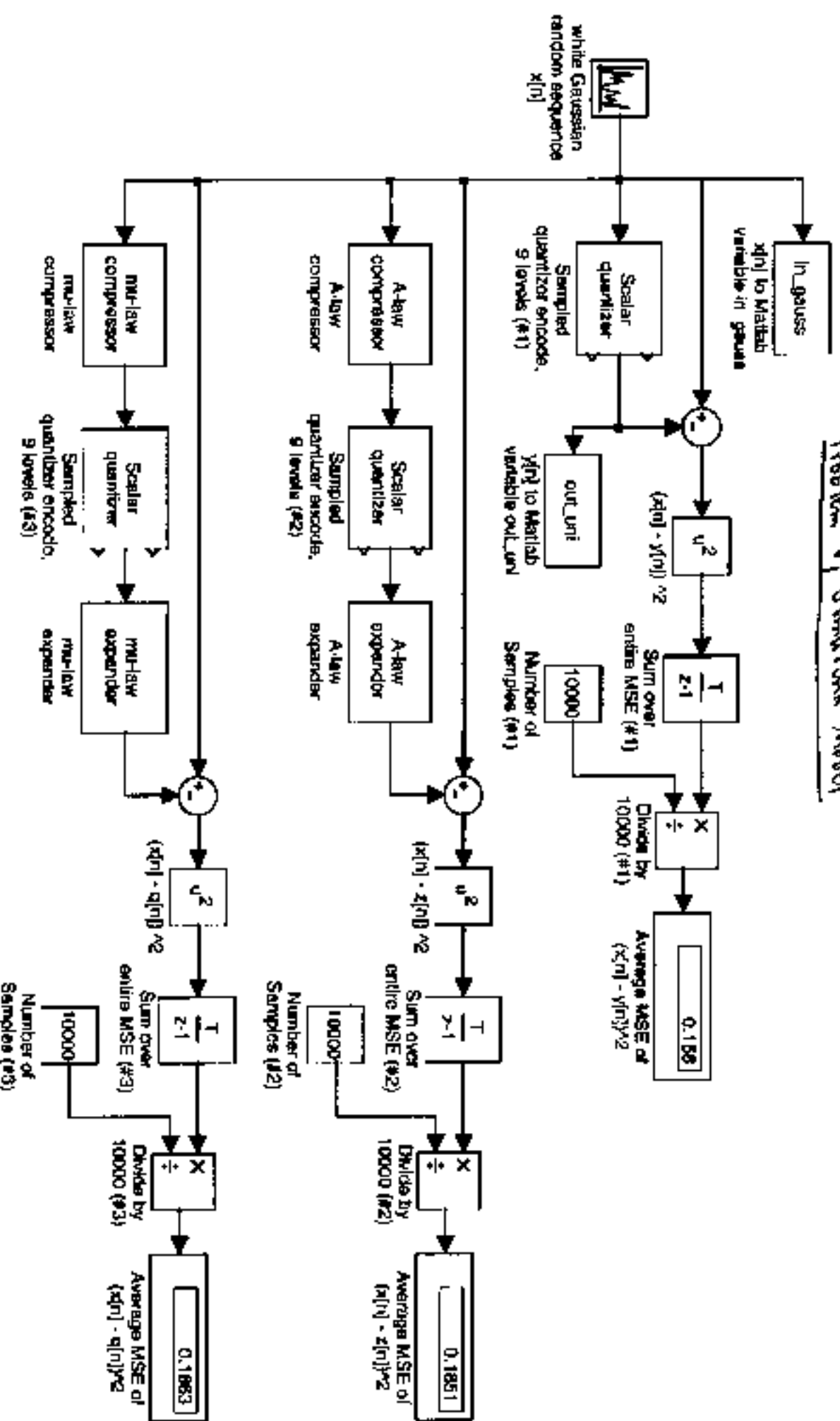
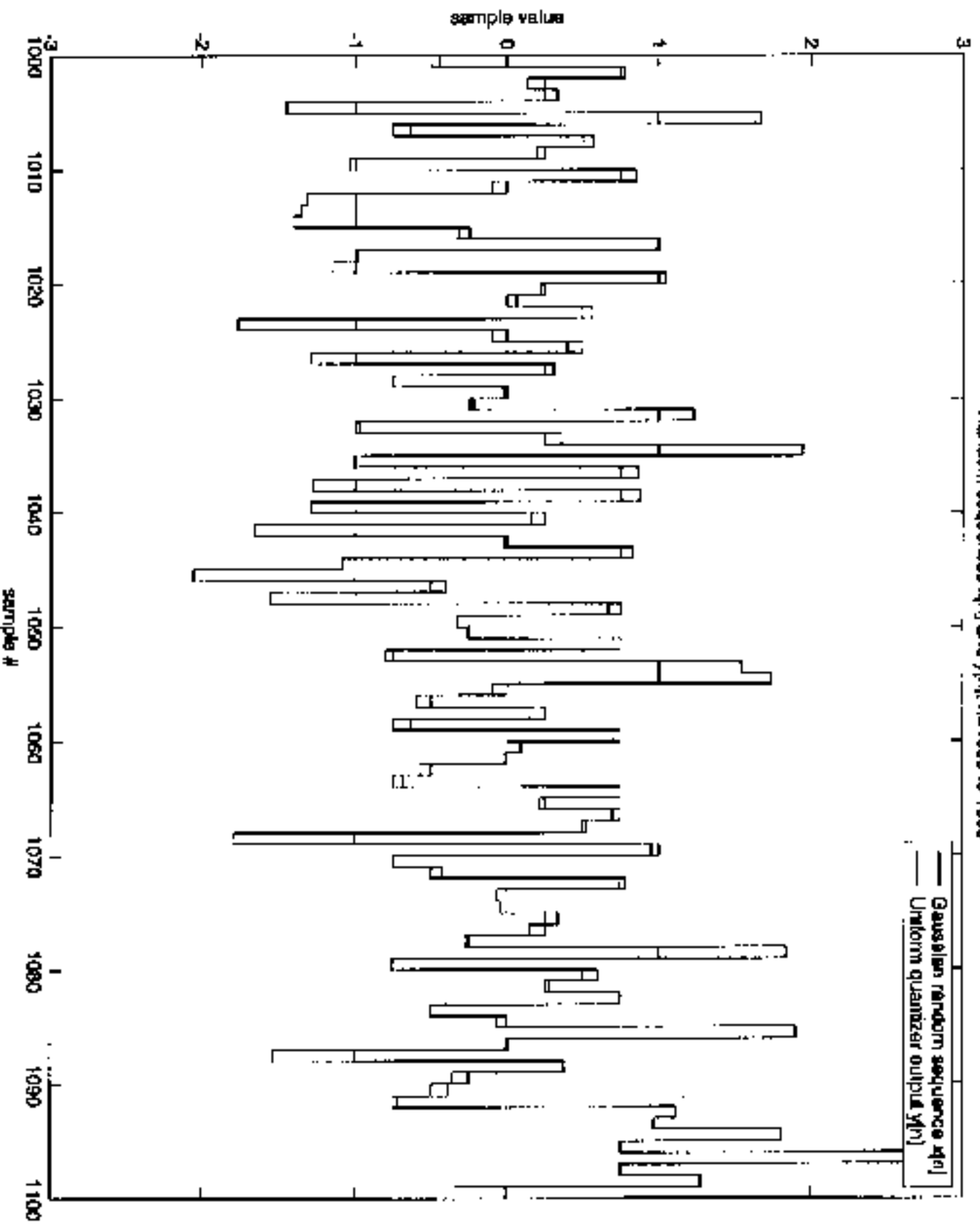


18-550 HW #2 Solutions

Problem 6, Simulink Model



Random sequences $x[n]$ and $y[n]$, $n=1000$ to 1099



```
% 18-550 HW #2 Solutions
```

```
% Problem 6, part b.
```

```
% construct overlapping staircase graphs of x[n] and y[n]
```

```
[IN_X,IN_Y] = stairs(tout(1001:1100),in_gauss(1001:1100));
```

```
[OUT_X,OUT_Y] = stairs(tout(1001:1100),out_uni(1001:1100));
```

```
plot(IN_X,IN_Y,'y-',OUT_X,OUT_Y,'m-');
```

```
title('Random sequences x[n] and y[n], n=1000 to 1099');
```

```
xlabel('sample #');
```

```
ylabel('sample value');
```

```
legend('Gaussian random sequence x[n]','Uniform quantizer output y[n]');
```