

Exam 1 will include the following topics:

1. Laplace transforms and inverse Laplace transforms. You should be very comfortable extracting transforms from the table and applying the definitions immediately.
2. Solution of ODEs via Laplace transforms.
3. Partial fraction expansions: the three cases.
4. Transfer functions: poles, zeros, positive and negative feedback systems.
5. Initial and final value theorems.
6. Block diagrams: reduction and simplification.
7. Transfer functions of circuits and outputs.