Unit 4 Lesson 4

- Consider the linear system

$$\dot{\mathbf{x}} = A(t)\,\mathbf{x}.$$

- Solutions to the above equation are considered linearly dependent if some linear combination of them (minus $c_n = 0$) equals zero for all t.
- Define the Wronskian of a set of vector functions to be

$$\left| V_1(t)\ V_2(t) \dots \right|$$

- $\Phi(t)$ is a fundamental matrix for a system if

$$\Phi' = A\,\Phi$$