

## **week 1 - Introduction to ODEs**

[Guterman-Nitecki] ch.1 stuff

## **week 2 - Examples and tools for ODEs**

[Guterman-Nitecki] ch.2 Springs, Linear ODEs, determinants, Wronskian

## **week 3 - Constant coefficient linear ODEs**

[Guterman-Nitecki] ch.2 linear indep, const coeff linear ODEs

## **week 4 - Inhomogeneous equations**

[Guterman-Nitecki] ch. 2.7 & 2.8

## **week 5 - Linear systems of ODEs**

[Guterman-Nitecki] ch. 3.2, 3.3

## **week 6 - Solving homogeneous linear systems of ODEs**

[Guterman-Nitecki] ch. 3.4, 3.5, 3.6

## **week 7 - Solving homogeneous linear systems of ODEs**

[Guterman-Nitecki] ch. 3.6, 3.7, 3.8

## **week 8 - conclusion of linear systems of ODEs**

[Guterman-Nitecki] ch. 3.9, 3.11

## **week 9 - Laplace Transforms**

[Guterman-Nitecki] ch. 5

## **week 10 - Laplace Transforms continued**

[Guterman-Nitecki] ch. 5

## **week 11 - Qualitative study of ODES**

[Guterman-Nitecki] 1.7, 1.8, 4.1

## **week 12 - Qualitative study of ODES**

[Guterman-Nitecki] 4.2, 4.3

## **week 13 - Qualitative study of ODES**

[Guterman-Nitecki] 4.4