

## 41021 Theory of Matrices (3)

### **Knowledge**

The students should be able to know the similarity transformation theories on the matrices, and in particular the Jordan canonical forms.

### **Comprehension**

Should be able to understand the simplest form that a matrix can be similar to, and be able to determine the Jordan canonical form of a given matrix.

### **Application**

Some applications on solving linear first order ordinary differential equations.

### **Analysis**

Be able to prove or understand the proofs of some classical theories of matrices.

### **Synthesis**

Should have a better and more comprehensive understanding of what studied in Linear Algebra.

### **Evaluation**

Should be able to use theories to find important information of a given matrix.

### **Class Activities**

To solve problems and prove Theorems in class.

**Out of class Activities** To do homework.