Course outline

Matlab basics

- Introducing Matlab environment
- Simple mathematical operation
- Variables
- Variable naming
- Specific variables
- Descriptive sentences
- Complex numbers
- Matlab functions
- Matlab guide
- m- files
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Arrays

- Writing arrays in Matlab
- Special matrices
- Mathematical operation on matrices
- Using mathematical functions for arrays
- Extracting or deleting some parts of arrays
- Searching arrays
- Array size
- Solving Systems of Linear Equations

Logical and relational operation

- Logical operators
- relational operators
- Logical and relational functions

Loops and conditional command

- **For loop**
- **While loop**
- **If command**

Functions in matlab

- **Writing functions**
- **Calling functions**

Drawing plots in matlab

- **Two dimentinal**
- **Three dimentional**

Polynomials in matlab

- **Roots of polynomials**
- **Summation and subtraction of polynomials**
- **Multiplication and division of polynomials**
- **Derivative of polynomials**

Fitting

Excel

Powerpoint

word