HS-MATH1641 Mathematical Laboratory and Modeling

Course Outline

In this course, we shall
1. introduce fundamental programming techniques in SciLab,
2. demonstrate how mathematical models are formulated, and
3. how to interpret these models with the help of computer.
Some basic techniques in calculus and linear algebra will be covered in due course.

Learning Outcomes

On successful completion of this course, students should be able to:

Course Learning Outcomes (CLO)	
CLO 1	recognize the importance of numerical methods in mathematical modeling
CLO 2	demonstrate basic algebraic and arithmetic computations in the Scilab environment
CLO 3	write and interpret programs in Scilab programming language
CLO 4	solve simple numerical problems by using interactive Scilab commands
CLO 5	solve moderately complicated numerical problems by writing Scilab programs

Study Load

36 contact hours + 120 learning hours

Assessments

Assignments / in-class activities (20%), two midterm tests (30%) and one written examination (50%)

No supplementary test and examination will be offered