

计算方法课程介绍

一、中文简介：

随着计算机技术的日益发展，计算作为一种科学研究的手段。课程《计算方法》不仅介绍数学的理论和算法，而且可以用科学计算的手段解决其它学科的问题。内容包括误差、函数的各类插值、线性方程组求解的直接法和迭代法、矩阵和特征值计算、各类数值积分、非线性方程求根和常微分方程数值求解等内容。通过本课程的学习，使学生掌握数值方法的一般理论和应用，培养学生用计算机来解决实际问题。

二、英文简介：

This course is a degree program for undergraduate students of Zhejiang University by science college. It includes : error, interpolation, direct and iterative method for solving linear system, computing of eigenvalues, numerical quadrature, numerical methods for solving nonlinear equations and numerical methods for solving ordinary differential equations. The course is aimed the student to know not only the theory of numerical analysis, but also to solve the problem in computer. One software for computing is required.