

Optimization Theory

Optimization Theory Training Course

This course introduces students to the concept of optimization and its theory. Students will learn about different numerical algorithms and how they are used in engineering.

After the course is completed the students will be able to understand the different optimization algorithms, multidisciplinary design optimization, and structural optimization theory. Students will understand how optimization theory maybe applied to different applications and areas of engineering.

Prerequisites

- A basic knowledge of algebra and calculus
- No prior knowledge of optimization is required

Class Topics

- Introduction to optimization
- Gradient-based optimization
 - Unconstrained function minimization
 - Constrained function minimization
- Multidisciplinary design optimization
- Structural optimization
- Applications of optimization

Class Style

- The instructor will present teaching material and cover theory
- 3 days

Instructors

- The class will be taught by Dr. Gary Vanderplaats

Locations

- Training courses will be held on-site at our Novi, Michigan office.

Class Time

- Class begins at 8:30 a.m.

