



# OSU PROFESSIONAL DEVELOPMENT PROGRAM ENGINEERING & BUSINESS MODELING, OPTIMIZATION AND CONTROL

8/10/2020 -  
8/11/2020

## Nonlinear Optimization - Techniques for Engineering (14 Contact Hours, 1.4 CEUs)

*Guided instruction and hands-on application to explore optimization software and address major challenges in optimization. This course will cover common gradient based optimization techniques (Incremental Steepest Descent, Cauchy Sequential Line Search, Newton, Levenberg Marquardt, and Solver's GRG) and direct search techniques (Heuristic, Hook Jeeves, Particle Swarm, Leapfrogging, and Genetic Algorithms), and both single and multi-objective applications (Pareto Optimal).*

8/13/2020 -  
8/14/2020

## Nonlinear Regression Modeling (14 Contact Hours, 1.4 CEUs)

*Guided instruction and hands-on application for nonlinear regression modeling, with a focus on developing both static and dynamic models.*

### Who Should Attend?

These courses are designed to develop and improve essential data analysis skills for practicing engineering or business employees and students, new faculty, scientists, and engineers. They provide an exploration of statistics, regression modeling, and optimization for comparing treatments, developing models, using models for process and product improvement, and analyzing and reporting uncertainty in decisions grounded in data and models.

**Presented by Russ Rhinehart**, Emeritus Professor OSU School of Chemical Engineering

Visit his Website at: <http://www.r3eda.com/>

### Registration:

- Individual classes: \$559 per class per participant
- Student discounted rate is \$345 per class. Students must call to register. Bursar billing available.
- Register online at: <https://ceatpd.okstate.edu/content/engineering-and-business-modeling-optimization-and-control>
- To register by phone, call: (405)744-5714 or email [bonnie.kaiser@okstate.edu](mailto:bonnie.kaiser@okstate.edu)
- More course information available at: <https://ceatpd.okstate.edu/>

Registrations may be canceled five (5) business days prior to the start of the course and receive a full refund. Within 5 days prior to the start of the course, registrants that cancel will be responsible for 25% of the course fee. Registrants that have paid and cancel without proper notification will receive a 75% refund. The registrants who fail to attend the course without any prior notification will be responsible for the full course fee. Substitutions may be made at anytime without penalty prior to the course starting date. In the event that OSU has to cancel a course,

OSU will not be responsible for any cancellation charges assessed by airlines, travel agencies, hotels, etc...

Pricing includes course materials, morning and afternoon refreshments.