Course Title: Spreadsheet Problem-Solving for Chemical Engineers

Course ID:	Course Type:
CH764	Instructor-led Course
http://www.aiche.org/ch764	

<u>**Course Schedule**</u>

Day One

8:00-8:30
Registration

8:30 – 9:45
Basic Spreadsheet Skills

- Configuring Excel for engineering calculations
- Efficient spreadsheet manipulations

9:45 – 10:15
Morning Break

10:15 – Noon
Basic Spreadsheet Skills

- Formulas, cell addressing and range names
- Creating engineering graphs

Noon – 1:00
Lunch Break

1:00 – 2:45
Process Calculations

- Dealing with engineering formulas and units
- Flow sheet calculations: recycle calculations

2:45 – 3:15
Afternoon Break

3:15 – 5:00
Process Calculations

- Targeting calculations
- Case studies with data tables

Day Two

8:30 – 9:45
Dealing with Data

- Table look-up and interpolation
- Quadrature and smoothing

9:45 – 10:15
Morning Break

10:15 – Noon
Dealing with Data

- Excel's Data Analysis toolpak
- Model building through curve-fitting

Noon – 1:00
Lunch Break

1:00 – 2:45
Numerical Problem-Solving

- Solving algebraic equations Solving differential equations

2:45 – 3:15
Afternoon Break

3:15 – 5:00
Numerical Problem-Solving

- Optimization calculations
- Economic evaluation: cash flow and profitability