



COURSE DESCRIPTIONS

Essential Concepts of Bearing Technology

DATES: September 9-11, 2008
BEGINS: 8:00 a.m. September 9
ENDS: 2:00 p.m. September 11

LOCATION: Sheraton University City Hotel,
Philadelphia, PA

TOPICS COVERED:

- Basic Concepts of Tribological Design
- History of Tribology and the Bearing Industry
- Rolling Bearing Types, Applications & Macrogeometry
- External & Internal Dimensional Standards
- Bearing Loads in Applications: Static Loading
- Basic Component Manufacturing Methods
- Quality Concepts & Standards (ISO 9000 & QS 9000)
- Bearing Loads In Applications: Dynamic Loading
- Mounting Methods: Shaft & Housing Fits
- Ball & Roller Loading
- Contact Stresses-Surface & Subsurface
- Bearing Load Sharing & Internal Loading
- Materials for Ball & Roller Bearings
- Introduction to Concepts in Friction, Lubrication & Wear
- Ball & Roller Bearing Deflections & Stiffness
- Lubrication Methods & Bearing Maintenance
- Failure Modes in Rolling Bearings
- Bearing Life-Standard & Catalog Calculation Methods

The course now includes a copy of the book *Rolling Bearing Analysis, Essential Concepts of Bearing Technology, 5th Edition* by Ted Harris and Mike Kotzalas (Taylor & Francis, CRCPress 2006).

FACULTY: Professors Ted Harris, Paul Cohen, and Tim Ovaert.

WHO SHOULD TAKE THIS COURSE? This course is designed for engineers and others with technical backgrounds that have limited exposure to bearings and need to either adapt their technical training to bearings or seek to upgrade their technical knowledge. The course curriculum includes quantitative and conceptual materials. Attendees receive 2 CEU's upon successful completion of this course.

COST MEMBER: \$1,475

COST NON-MEMBER: \$1,725