COURSE DESCRIPTIONS

Advanced Concepts of Bearing Technology

DATES: June 10-13, 2008
BEGINS: 8:00 a.m. June 10
ENDS: 12:00 p.m. June 13

LOCATION: Penn State University, State College, PA

TOPICS COVERED:

- Bearing Macrogeometry: Clearance, Free Contact Angle, Press Fitting
- Ball/Roller Loading: Static/Inertial
- Contact Stresses, Deflection, & Subsurface Stresses
- Internal Load Distribution
- Internal Speeds & Motions: Rolling, Sliding, Spinning
- Internal Load Distribution - High Speed
- EHD- & Micro-EHD Lubrication
- Concepts of Friction & Wear
- Statistical Analysis Methods
- Tolerances, Metrology, & Surface Topography
- Contact Friction
- Bearing Friction & Temperature
- Failure Modes
- Permanent Deformations & Static Capacity
- Vibration, Noise & Condition Monitoring
- Fatigue Life Prediction: Standard & Catalog Methods; Testing Methods; and Fatigue Limit Stress Methods
- Lubricants & Rheology
- Shaft-Bearing Systems & Performance Analysis Computer Programs

Advanced course provides greater emphasis on examples to reinforce the technology and methods of calculation used to predict rolling bearing performance.

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

FACULTY: Professors Ted Harris, Michael Kotzalas & Tim Ovaert.

WHO SHOULD TAKE THIS COURSE? Individuals with a B.S. in engineering or a related discipline and either attendance at ABMA's Essential Concepts of Bearing Technology course or 2-3 years work experience in the bearing or related industries. Attendees receive 3.2 CEU's upon successful completion of this course.

MEMBER PRICE: $1,875
NON-MEMBER PRICE: $2,225