KNOW MORE WITH TRAINING
Improving human and environmental health is our focus. From earlier insights and more effective therapies to cleaner water and safer buildings where we work, learn and play; PerkinElmer touches the lives of millions of people around the world every day.

Through science, innovation and applications expertise we’re committed to transforming risk into safety, mystery into knowledge and ideas into action for a healthier today and a better tomorrow. We operate in 150 countries worldwide and employ approximately 7,500 employees. Seventy-five percent of our products are in the number one or number two position in their market.

Our global headquarters are in Waltham, Massachusetts, USA. PerkinElmer is the world’s leading technology and solution provider in the fields of human and environmental health. We are actively engaged in the development of technology and solutions in the areas of analytical sciences, life sciences and genetic screening.

PerkinElmer is proud to be associated with all the major customer accounts across industries including pharmaceutical, government, environmental, petrochemical and chemical. This provides us the unique ability to understand and provide solutions across a wide spectrum of product technologies and varied application segments.

Our world class product range includes:
- Molecular Spectroscopy (MS)
- Infrared (FTIR & IR) Spectrometers
- UV/Vis & UV/Vis/NIR
- Raman Spectroscopy
- Thermal Elemental Analysis (TEA)
- Atomic Absorption Spectrometers (AA)
- Inductively Coupled Plasma (ICP)
- ICP-Mass Spectrometry
- Gas Chromatography (GC and GC/MS)
- Liquid Chromatography (LC and LC/MS)
- And many more

OneSource Laboratory Services: The one you can count on:
- Instrument Service & Repair
- Analytical Method Services
- Asset Procurement & Disposition
- Laboratory Relocation
- Qualification & Validation
- Scientific IT Services
- Business Intelligence Solutions
- And many more
**DATA SYSTEMS**

**TotalChrom Comprehensive User Training N0202052**
*Duration: 2 days*
- Designed for the user who has limited experience in running the TotalChrom™ software.
- Setting-up Instruments, preparing methods for instruments and transcribing methods from other systems
- Optimising the method after data collection (graphic method editor)
- External, internal and multilevel standards
- Creating and modifying sequences

**TotalChrom Client/System Application Manager N0202053**
*Duration: 3 days*
- Designed for the user who would like to maintain and troubleshoot the TotalChrom network system.
- Configuring Microsoft® Server 2003 and XP professional operating systems
- Design and concept overview, including access control and security
- Designing and building a TC Client/server system
- Maintaining, managing and owning an operational TC Client/server system

**TotalChrom Publisher N0202055**
*Duration: 2 days*
- Designed for experienced Turbochrom/TotalChrom users and or those responsible for managing the system.
- TC Publisher reporting
- TC Publisher report building
- Sections and pages
- Report elements
- Obtaining chromatograms

**LIQUID CHROMATOGRAPHY**

**GC MASS SPECTROMETRY**

**GC/MS Basic Instrument Familiarisation N0232014**
*Duration: 2 days*
- Designed for the new user of the Clarus 500 & 600 MS Detector for the Clarus 500 & 600 GC, Turbomass Gold or Turbomass MS detectors for the AutosystemXL GC.
  - Theory of the operation
  - GC requirements for MS
  - General precautions
  - Column Installation tuning
  - Calibration of the MS

**GC/MS Advanced Instrument Familiarisation N0232002**
*Duration: 1 day*
- Designed for the user who has some experience of the Clarus 500 & 600 MS detector, Turbomass™ Gold or Turbomass MS detectors for the AutosystemXL GC.
  - Operation of MS with a FID
  - Chemical ionisation schedule
  - Introduction to chemical ionisation
  - Routine maintenance of the inner source, pump and operating system

**TurboMatrix ATD Instrument Familiarisation N0232001**
*Duration: 1 day*
- Designed for the new users of the TurboMatrix™ TD & ATD.
  - Method parameters, method storage, method linking
  - Understanding run deviations
  - Setting the desorb and split flows

**TurboMatrix Headspace N0200450**
*Duration: 2 days*
- Designed for the user who has no experience of headspace GC.
  - Simple headspace GC theory
  - Optimising headspace parameters
  - Method development
  - Calibration of headspace system

**CHROMATOGRAPHY**

**Basic Gas Chromatography N0232013**
*Duration: 3 days*
- Designed for the beginner who has no experience of GC.
  - Simple GC theory
  - Pneumatic controls, column selection
  - Injectors and injection techniques

**Clarus GC Familiarisation N0232000**
*Duration: 1 day*
- Designed for the new users of the Clarus® 500 & 600 GC.
  - Overview of gas chromatography
  - Types of injectors
  - Overview of programmable pneumatics control (PPC)
  - Capillary column installation

**Workshop on Thermal Desorption N0200433**
*Duration: 1 day*
- Designed for the user who has no experience of thermal desorption.
  - Theory of thermal desorption
  - Workplace and environmental sampling
  - Pumped sampling
  - Diffusive sampling
  - Diffusive uptake rates
  - Liquid samples

**TurboMatrix TD & ATD, FID ATD**

**Familiarisation N0232014**
*Duration: 1 day*
- Designed for new users of PerkinElmer Photo Diode Array Detectors with IRIS™ spectral software.
  - Diode Array Detector design, operation, uses and benefits
  - Peak purity, spectral comparison, spectral manipulation and libraries
  - Automation of spectral operations

**Series 200 and Flexar™ LC Routine Maintenance and Troubleshooting N0233016**
*Duration: 1 day*
- Designed for users who wish to gain experience in PerkinElmer HPLC system troubleshooting with hands-on basic system maintenance.
  - Instrument design and good HPLC operating practice
  - Chromatography and instrument troubleshooting
  - Getting the best out of instrument diagnostics
  - Routine maintenance

**TotalChrom control of Series 200 and Flexar™ LC N0233002**
*Duration: 1 day*
- Designed for new users of PerkinElmer HPLC under TotalChrom control
  - System configuration and connections
  - Method and sequence generation, shutdowns
  - Software and hands-on instrument control
  - Data handling and results reporting

**TotalChrom control of Series 200 & Flexar™ LC N0233001**
*Duration: 1 day*
- Designed for users who wish to gain maximum benefit from Chromera control of Series 200 LC instrumentation.
  - System configurations and connections
  - Method & Sequence generation
  - Sections and Pages
  - Hands on control, real time modification
**INFRARED SPECTROSCOPY**

**Advanced Familiarisation for Spectrum N023700**
**Duration: 0.5 day**
This course is designed for those users new to the Spectrum suite and anyone transitioning from previous versions to the current interface.
- Introduction to infrared theory
- Principles of instrument operation including discussion of which spectral parameters to optimize
- Review of sampling techniques
- Software functionality including; peak selection, data storage, compare, library searching
- Basic maintenance

**Advanced Training for Spectrum N0237001**
**Duration: 1 day**
Those users wishing to expand on the familiarization of the Spectrum suite.
- Introduction to infrared theory
- Principles of instrument operation including discussion of what parameters to optimize
- Review of sampling techniques
- Software functionality including; peak selection, data storage, compare, library searching, equation editing, macro development.
- Principles of spectral interpretation
- Introductions to basic quantitative analysis using Beer's Law

**Quantitative Analysis N0237002**
**Duration: 1 day**
Those users wishing to develop quantitative methods and details on how to achieve optimum quantitative results.
- Introduction to quantitative analysis including which methods suit which data set.
- Review of Beer's Law
- Introduction to Quant+
- Introduction to Chemometrics

**Quality Control for Infrared N0237008**
**Duration: 1 day**
"Those users wishing to implement infrared spectroscopy into the quality control environment.
- Implementation of qualitative methods
- Implementation of quantitative methods
- Advanced instrument performance verification
- Running routine procedures"

**Basic UV Spectroscopy and UV WinLab v6 Software N0235002**
**Duration: 1 day**
For WinLab used with most recent Lambda™ UV/VIS and NIR Spectrophotometers. It will show users of UV Winlab how to set up Methods for automated analysis, show various ways of producing customised reports and spectra in the feature Report Builder.
- Scanning Spectra
- Timedrive
- Wavelength Programming, single of multil wavelength with custom calculations
- Kinlab for kinetic data reduction

**Advanced UV Spectroscopy N0235000**
**Duration: 1 day**
This course is designed for method developers using UV WinLab software and deals with the more advanced features of the software. Topics include the following:
- Sample table design
- Results table, custom tables, measurements/replicates tables
- Report design
- The equation editor
- Exporting methods, report templates and custom objects
- Conditional ("pass/fail") formatting
- Spectral processing

**WINPREP FOR JANUS**

**WinPrep for Janus (Basic) N0209774**
**Duration: 1 day**
Designed for the new JANUS® and MultiPROBE II user or for anyone who needs a refresher on these instruments.
- Simple liquid handling theory system hardware overview
- Principles of method development and optimisation
- Instrument set-up, calibration and utilities
- Troubleshooting and maintenance

**WinPrep for Janus (Advanced) N0200240**
**Duration: 1 day**
Designed for existing JANUS or MultiPROBE II users with a basic competency who would like to exploit the more advanced features of the instrument and software.
- Software theory and hands-on custom procedures
- Advanced optimisation of performance files
- Use of specific robotic options

**INORGANIC**

**ATOMIC ABSORPTION**

**Practical Flame AA N0200920**
**Duration: 1.5 days**
Designed for those familiar with the basics of the instrument who want to operate and troubleshoot with more detail on interferences and method optimisation.
- Overview of Atomic Absorption
- Instrument optimisation
- Overview of the software (AAWinlab)
- Routine maintenance

**Practical Furnace AA N0231002**
**Duration: 2 days**
Designed for those familiar with the basics of the instrument who want to operate and troubleshoot with more detail on interferences and method optimisation.

**INDUCTIVELY COUPLED PLASMA - OES**

**Optima™ Series ICP N0236007**
**Duration: 2 days**
Designed for the user who would like to develop an optimised multi element program after identifying and overcoming common spectral and physical interferences.
- Theory of ICP routine checks and basic maintenance
- Method development

**NexION® Basic N0236008**
**Duration: 2 days**
Instruction on basic optimisation of the ICP-MS, creating and running methods. Management of the data and reprocessing skills.
- Overview of ICP-MS components
- Optimization
- Interference: Theory and Practical exercises
- Method Development / Sample Analysis
- Reporting / Data Management
- Running samples

* course available on request
OUR TRAINERS...

Mark Upton
Mark has worked for PerkinElmer for 25 years exclusively in HPLC covering a range of areas, including sample preparation, running applications, and running customer training courses.

Victoria Hillyer
Victoria now works as a consultant but previously held the role of UK Atomic Absorption product specialist for PerkinElmer and has considerable experience within a variety of roles including sales, customer technical support and applications advice. Prior to this she spent 15 years with the Ministry of Defence as an Analytical and Research Chemist utilizing Atomic Absorption techniques.

Steve Upstone
Steve joined PerkinElmer in 1979 and during this time has worked mainly with UV and fluorescence products. He has experience in a wide range of fields as diverse as molecular biology, pharmacology, colour science, solar energy and optics as well as general expertise in analytical chemistry.

Olivier Savard
Olivier is a polymer chemist who graduated from Simon Fraser University (Canada). He has been working for PerkinElmer since 2007. He was first employed as the material characterization product specialist for PerkinElmer Canada before moving to PerkinElmer UK/Ireland in 2011. Olivier is now the infrared, near-infrared and hyphenation product specialist for the UK, Ireland and the Scandinavian countries.

Clive Stephens
After qualifying as a Biochemist Clive spent a number of years working in the Pathology labs of the John Radcliffe Hospital, Oxford before joining Wallac in 1992 working with the Delfia Kits and instrumentation in a variety of support roles. Clive joined PerkinElmer's Liquid Handling group in 2002 and has gained extensive knowledge in his roles in service, applications support and training of the large range of liquid handling options and integrations across Northern Europe.

James Wortley
After gaining an Honours degree in Pollution Control and qualifying as an Engineer, James has worked in field service/training roles since 1999. He joined PerkinElmer in 2006 as a field service engineer supporting PerkinElmer GC/MS and Turbomartix HeadSpace and Thermal Desorption products in the UK.

Stuart Baker
Stuart has been running ICP courses for PerkinElmer for 6 years. His career began at BP where he worked in several analytical areas including surface science, gas chromatography, wet chemical analysis and microanalysis before joining the spectroscopy group where he specialized in ICP/AAS. In 2002 he formed ADS Elemental, a commercial laboratory predominantly working in the oil and gas sector which was eventually acquired by Expro. Stuart has provided expert witness evidence in several high profile oil spill cases and continues to oversee laboratory operations within Expro ADS.

David Price
David has an analytical chemistry PhD and over 15 years of ICP-MS experience. He joined PerkinElmer in 2012 from the water industry where he managed a team of analysts working within a UKAS accredited laboratory. Previous roles in both academia and industry have provided exposure to a variety of different analytical applications. Since joining PerkinElmer David has carried out training courses for those new to ICP-MS and those looking to build on existing knowledge.

Paul Gabbott
Paul has been involved in Thermal Analysis throughout his career, he joined PerkinElmer in 1979 as our thermal product specialist. In his current role as a PETA consultant Paul has worked on the development of HyperDSC and its applications. In 2008 he edited a book entitled ‘Principles and Applications of Thermal Analysis’ which is a good and fairly comprehensive introduction to Thermal Analysis and how it is used.
All training courses are delivered by our established team of experts:

- With over 270 years of broad, industry experience at their fingertips, our highly skilled team of trainers ensures an outstanding wealth of knowledge is consistently at your disposal.

- An exceptional combination of experience from both manufacturing and user environments enables us to fully understand your training requirements.

- This unrivalled depth of experience and understanding enables our team to address your technical and application problems during the training.

- With a broad range of technologies available, our courses offer the perfect balance of both hands on training with our fully operational instrumentation and theoretical learning.

- Our training courses will help you overcome any operational problems in your laboratory and give you the opportunity to troubleshoot your application queries. This will help you maximize the use of your instruments and increase the efficiency of your lab.

A full list of courses offered is available on our website www.perkinelmer.com and on the published calendar along with information on how to enrol. Alternatively if you would like to discuss your individual training needs with one of our experienced instructors then please don’t hesitate to contact us at UKTraining@perkinelmer.com