

About Us

Anthias Consulting provides independent and professional training and analytical consulting services to clients, who are manufacturers, laboratory analysts & technicians, PhD students and technical consultants. We are able to tailor any of our services to meet your needs.

We work with clients from over 15 countries worldwide and are proud to be associated with major customers across many industries including environmental, pharmaceutical, government and oil & gas.

We can provide the user of the GC, GC-MS and periphery instrumentation with a range of services from consultancy advice to training, so that they can get the best out of their instruments and analytical methods.

Our Trainers

All training courses are delivered by highly skilled, practising experts with many years of broad industrial experience at their helm, ensuring an outstanding wealth of knowledge at your disposal. This depth of understanding enables us to address your technical and application problems during the training and draw your attention to the critical parts of the theory in a practical manner.

Our Participant Feedback

We ensure that all participants attending our training events have an enriched experience and advance their knowledge and experience. The positive feedback from our clients can be found throughout this document.

We value all feedback from our clients and many of our courses have been developed in response to such feedback.

All of our courses have received an overall rating of above 4.5 / 5 including the quality of the material & knowledge of the presenter.

Our Courses

Our high-quality, affordable, instrument-independent training courses can boost your knowledge, confidence and results in all aspects of GC and GC-MS.

Training is provided for all levels of experience, so whether you are an absolute beginner in gas chromatography or experienced in a certain area and wishing to expand your knowledge, we have a course for

you. Our courses will help you answer any operational questions and provide you with the opportunity to increase the efficiency of your laboratory.

We have 3 general types of courses:

- Generic classroom based training courses with a focus on practical learning.
- Generic laboratory based hands-on training courses with at least 50% of the time spent in the laboratory.
- Manufacturer & software specific training courses.

Depending on demand, the frequency of each course may be increased or occasionally some dates are cancelled. For the most up-to-date list of dates and prices, please visit our website

<http://www.anthias.co.uk/content/training-courses>.

For more information or for a full course outline please email courses@anthias.co.uk.

Course Enrolment

The full list of courses offered, along with information on how to enrol is available on our website <http://anthias.co.uk/training/training-course-list> or by sending an email to courses@anthias.co.uk.

Course Numbers

- Generic classroom based training courses need at least 5 people to proceed and have a maximum of 15 people on the course.
- Generic laboratory based hands-on training courses need at least 2 people to run and have a maximum of 4-6 people on each course.
- Manufacturer and software specific training courses need at least 3 people to run and have a maximum of 6 people on the course.

Alternative Course locations

We have provided and continue to provide our courses to various clients at various locations throughout the UK and overseas. Our courses are designed to match any numbers, training requirements and budgets. Alternative to our scheduled courses, we can provide

- Generic classroom, hands-on and manufacturer / software specific courses onsite.
- Personalised classroom and laboratory-based courses at The Open University, Milton Keynes, UK.

Generic classroom based training courses with practical focus

Classroom-based courses vary from 1 to 5 days and allow delegates to boost their knowledge, confidence and results in all aspects of GC and GC-MS. The courses have a strong focus on the practical side of the techniques rather than theoretical, which can be applied the instant you return to your lab.

Although there will be a use of 'props' (instrument parts and consumables) within these courses for you to get a feel of and you'll be presented with lots of tips and tricks, there will be no laboratory-based practical exercises within these courses. There will be questions or tasks throughout the courses to help you think through what you are learning, your brain will be tested especially in The GC & GC-MS Clinic, and we do endeavour to organise a laboratory tour for you to see GC or GC-MS instruments in action.

1-day Absolute Basics of GC & GC-MS

Course Description:	This is a perfect introduction for absolute beginners to gas chromatography and GC-MS. This course will cover the <i>what, why, where, when and how of GC & GC-MS</i> .	
	<ul style="list-style-type: none"> ▪ What is a GC or GC-MS? ▪ Why would you use them? How would they help solve your problems and what answers could they give? ▪ When would you use them? What types of analytes and samples can you use them for? ▪ How would you use them? How do they work and what is available? ▪ Where would you use them? Which applications to answer what questions? 	
Who is this for?	If you have no or very little knowledge of gas chromatography, are an analyst, technician, engineer or work in sales and would like to improve your knowledge in this area, then this is the course for you.	
	This 1-day course is ideal either as stand-alone or prior to attending the Complete GC & GC-MS, Practical Essentials of GC & GC-MS or Complete Hands-on GC & GC-MS courses.	
Course dates & Venues:	24 th March 2014	The Open University, Milton Keynes, UK
	17 th June 2014	The Open University, Milton Keynes, UK
	5 th September 2014	The Open University, Milton Keynes, UK
	9 th December 2014	The Open University, Milton Keynes, UK
Number of days:	1 day	
Price:	£120 plus 20% VAT	
Special offers:	<ul style="list-style-type: none"> ▪ <i>Early Bird</i>: Book at least 12 weeks in advance and receive a 10% discount for this 1-day course. ▪ <i>Student</i>: Discount of 10% for this 1-day course (valid student ID card required), if booked at least 4 weeks in advance. ▪ <i>Group discount</i>: 4 colleagues from the same company can attend for the price of 3, when attending the same course. 	
Course Feedback:	<p><i>"Everything about this course (especially the) operational procedure of the GC-MS."</i> Olawumi Samuel, a Laboratory Scientist from Nigeria's Osum State University (May 2013).</p> <p><i>"Proximity exchange with the very knowledgeable teacher. The little tips and examples that may not be in the presentation."</i> Post-Doctoral Research Assistant from a University (May 2013).</p> <p><i>"Coverage of wide range of material, optimal balance between general and more specialised topics, small group size, [and] face-to-face interaction."</i> Researcher, The Open University (2012).</p>	

5-day Complete GC & GC-MS course

Course Description:	<p>The 5-day Complete GC & GC-MS course is built from the 3-day Practical Essentials of GC & GC-MS and the 2-day GC & GC-MS Clinic courses to provide a complete training solution enabling you to understand your Gas Chromatograph or GC-MS instrument, develop applications, troubleshoot & maintain it.</p> <p>This course covers all the practical theory you need to know about Gas Chromatography and its related techniques including gas chromatography-mass spectrometry; gases and plumbing; sample introduction like split, splitless, on-column and large volume injection techniques; analytical columns; GC detectors and mass selective detectors; data analysis; and sampling techniques like headspace, SPME, pyrolysis, thermal desorption, purge & trap, liquid-liquid and solid-phase extraction.</p> <p>It also looks at how to choose the GC & GC-MS techniques for an application, set-up the instrument, how to develop & optimise methods and then finally how to maintain & troubleshoot the instrument, techniques and method. It also takes a brief look at advanced techniques to help solve those very tricky applications including Selective Discrimination, Deconvolution, Two-Dimensional GC (GC+GC & GCxGC) and Chemometrics.</p> <p>This 5-day course is recognised by the Royal Society of Chemistry for purposes of Continuing Professional Development. Members of the RSC will receive a 15% discount on this course if booked at least 4 weeks in advance. A FREE glossary on GC & GC-MS is provided with this course!</p>	
Who is this for?	<p>The Complete GC & GC-MS course is for those who have basic knowledge of gas chromatography and would like to greatly enhance it, learning the practical theory about all available GC & GC-MS techniques. For complete beginners it is advisable to first attend the 1-day Absolute Basics of GC & GC-MS, as you may be overwhelmed by the amount of information on this course.</p> <p>You can attend the 5-day course all at once or, learn about the techniques in the first 3 days, go back to the lab to implement the knowledge and then join us at a later date to attend the more advanced 2-day GC & GC-MS Clinic course.</p>	
Course dates & Venues:	<p>20th - 24th January 2014</p> <p>24th - 28th February 2014</p> <p>7th - 11th April 2014</p> <p>22nd - 26th June 2014</p> <p>14th - 18th July 2014</p> <p>18th - 22nd August 2014</p> <p>6th - 10th October 2014</p>	<p>The Open University, Milton Keynes, UK</p> <p>TBC (Overseas)</p> <p>MSD, Hoddesdon, UK</p> <p>Hilton Abu Dhabi</p> <p>Imperial College London</p> <p>The Open University, Milton Keynes, UK</p> <p>The Open University, Milton Keynes, UK</p>
Number of days:	5 days	
Price:	£990 plus 20% VAT	
Special offers:	<ul style="list-style-type: none"> ▪ <i>Early Bird</i>: Book at least 12 weeks in advance and receive a 10% discount for this 5-day course. ▪ <i>Student</i>: Discount of 10% for this 5-day course (valid student ID card required) if booked at least 4 weeks in advance. ▪ <i>RSC Member</i>: Discount of 15% for this 5-day course (membership number required) if booked at least 4 weeks in advance. ▪ <i>ChromSoc Member</i>: Discount of 10% for this 5-day course (membership number required) if booked at least 4 weeks in advance. ▪ <i>Warwick alumni</i>: Discount of 10% for this 5-day course (membership number required) if booked at least 4 weeks in advance. ▪ <i>Group Discount</i>: 4 colleagues from the same company can attend for the price of 3, when attending the same course. 	

Course Feedback: *“Excellent slides, well presented, with some good visual aids and good narration and delivery by the presenter. This is a fantastic course.”* Dr Kristopher Elliot, Research Manager from Parker Hannifin Ltd (July 2013).

“The presenter has good overall knowledge of the system. The class was always warm and friendly. Impressively consolidating and truly complete.” Albert Fadairo, a University lecturer from Nigeria (April 2013).

“I enjoyed learning about how the GC works and how many factors can influence it. [It] has made me think about how we use the machine.” Katie Barker, a Senior Scientist from CTDS Ltd (April 2013).

3-day Practical Essentials of GC & GC-MS

Course Description: This course covers all the practical theory you need to know about gas chromatography and its related techniques including GC-MS; gases and plumbing; sample introduction like split, splitless, on-column and large volume injection techniques; analytical columns; GC detectors and mass selective detectors; data analysis; and sampling techniques like headspace, SPME, pyrolysis, thermal desorption, purge & trap, liquid-liquid and solid-phase extraction.

This course is packed full of examples and practical tips, makes full use of props and includes a Questions and Answers session at the end of each day making it the course to attend for all of your useful GC knowledge.

This course forms part of the 5-day Complete GC and GC-MS course.

Who is this for? This course is for those who have basic knowledge of gas chromatography and would like to greatly enhance it, learning the practical theory about all available GC & GC-MS techniques.

Course dates & Venues:	20 th - 22 nd January 2014	The Open University, Milton Keynes, UK
	7 th - 9 th April 2014	MSD, Hoddesdon, UK
	22 nd - 24 th June 2014	Hilton Abu Dhabi
	14 th - 16 th July 2014	Imperial College London
	6 th - 8 th October 2014	The Open University, Milton Keynes, UK

Number of days: 3 days

Price: £595 plus 20% VAT

Special offers:

- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for this 3-day course.
- *Student:* Discount of 10% for this 3-day course (valid student ID card required) if booked at least 4 weeks in advance.
- *RSC Member:* Discount of 10% for this 3-day course (membership number required) if booked at least 4 weeks in advance.
- *ChromSoc Member:* Discount of 10% for this 3-day course (membership number required) if booked at least 4 weeks in advance.
- *Warwick alumni:* Discount of 10% for this 3-day course (membership number required) if booked at least 4 weeks in advance.
- *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.
- *Combine* with the 2-day GC & GC-MS Clinic course to form the 5-day Complete GC & GC-MS course for £990 plus 20% VAT.

Course Feedback: *"Excellent course and good knowledge of the presenter. Explanation good and broad spectrum of knowledge."* Karen Scott, a Senior Laboratory Scientist from CTDS Ltd (April 2013).

"The method of teaching was excellent and focused. Covered all topics related to GC and GC-MS. The slides were appropriate and good for better understanding." Dr Azra Ahmed, Specialist Clinical Chemist from the Saudi Ministry of Health (April 2013).

2-day The GC & GC-MS Clinic

Course Description: This course looks at how to choose the GC & GC-MS techniques for an application, set-up the instrument, how to develop & optimise methods and then finally how to maintain & troubleshoot the instrument, techniques and method.

This advanced course also takes a brief look at advanced techniques to help solve those very tricky or complex applications including Selective Discrimination, Deconvolution, Two-Dimensional GC (GC+GC & GCxGC) and Chemometrics.

This course forms part of the 5-day Complete GC and GC-MS course and is often taken as a follow-on course from the Practical Essentials of GC & GC-MS.

Who is this for? If you have reasonable gas chromatography experience or have attended the Practical Essentials of GC & GC-MS or the Complete Hands-on GC & GC-MS courses then please join us for this advanced training.

Course dates & Venues:	23 rd - 24 th January 2014	The Open University, Milton Keynes, UK
	10 th - 11 th April 2014	MSD, Hoddesdon, UK
	25 th - 26 th June 2014	Hilton Abu Dhabi
	17 th - 18 th July 2014	Imperial College London
	9 th - 10 th October 2014	The Open University, Milton Keynes, UK

Number of days: 2 days

Price: £400 plus 20% VAT

Special offers:

- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for this 2-day course.
- *Student:* Discount of 10% for this 2-day course (valid student ID card required) if booked at least 4 weeks in advance.
- *RSC Member:* Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance.
- *ChromSoc Member:* Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance.
- *Warwick alumni:* Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance.
- *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.
- *Combine* with the 3-day Practical Essentials of GC & GC-MS course to form the 5-day Complete GC & GC-MS for £990 plus 20% VAT.

Course Feedback: *"Excellent if already using GC or GC-MS to increase knowledge and help to identify problems with instrumentation already using. Particularly good information on troubleshooting and useful diagrams to visualise the whole instrumentation that is not considered by users."* Caroline Smith, Analyst, LGC Forensics.

"I thought the info given was fantastic. Covered a wide range of things that I didn't even know were associated with GC. Diane presented very well and clearly her knowledge on the subject is fantastic." Laboratory Technician, Geosciences.

"Very well organised and friendly. I had no idea there was so much to GC. A list of what all the acronyms mean would be very useful. Thank you." Research Fellow, Separation Sciences.

Individual days from the Complete GC & GC-MS course

Course Description : If you would like to improve your knowledge in a particular area and don't want to attend a 5-day course you can also choose to attend individual days from the Complete GC & GC-MS course at a cost of £220 plus 20% VAT per day.

1-day Gases & Plumbing and Sample Introduction in GC & GC-MS

Course dates & Venues:	20 th January 2014	The Open University, Milton Keynes, UK
	7 th April 2014	MSD, Hoddesdon, UK
	22 nd June 2014	Hilton Abu Dhabi
	14 th July 2014	Imperial College London
	6 th October 2014	The Open University, Milton Keynes, UK

1-day GC Columns, GC Detectors (including MSD) and Data Analysis

Course dates & Venues:	21 st January 2014	The Open University, Milton Keynes, UK
	8 th April 2014	MSD, Hoddesdon, UK
	23 rd June 2014	Hilton Abu Dhabi
	15 th July 2014	Imperial College London
	7 th October 2014	The Open University, Milton Keynes, UK

1-day Sampling Techniques for GC & GC-MS

Course dates & Venues:	22 nd January 2014	The Open University, Milton Keynes, UK
	9 th April 2014	MSD, Hoddesdon, UK
	24 th June 2014	Hilton Abu Dhabi
	16 th July 2014	Imperial College London
	8 th October 2014	The Open University, Milton Keynes, UK

1-day GC & GC-MS Method Development and Advanced Techniques

Course dates & Venues:	23 rd January 2014	The Open University, Milton Keynes, UK
	10 th April 2014	MSD, Hoddesdon, UK
	25 th June 2014	Hilton Abu Dhabi
	17 th July 2014	Imperial College London
	9 th October 2014	The Open University, Milton Keynes, UK

1-day GC & GC-MS Troubleshooting & Maintenance

Course dates & Venues:	24 th January 2014	The Open University, Milton Keynes, UK
	11 th April 2014	MSD, Hoddesdon, UK
	26 th June 2014	Hilton Abu Dhabi
	18 th July 2014	Imperial College London
	10 th October 2014	The Open University, Milton Keynes, UK
Number of days:	1 day each	
Price:	£220 plus 20% VAT for each day	

- Special offers:**
- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for any course.
 - *Student:* Discount of 10% for any 1-day course (valid student ID card required) if booked at least 4 weeks in advance.
 - *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

Course Feedback: *"It was very useful to be able to attend the single day so that I can learn the sections that were useful to me."* Analytical chemist at a University attended 1-day Gases & Plumbing and Sample Introduction course from the Complete GC & GC-MS course (April 2013).

"All the information was given in a clear and very professional manner and the course will really help me to identify problems I might encounter in the future. All questions were answered and good examples and solutions to problems given. All topics covered were useful and interesting + we had a tour of the lab!" Katuska Caraballo, Analytical Chemist at South East Water, attended the Troubleshooting & Maintenance individual day of the Complete GC & GC-MS course (July 2012).

3-day Mass Spectral Interpretation course

Course Description: This course is an introduction to mass spectral interpretation, aimed at presenting the fundamental tools and rules when examining high quality full-scan GC-MS data.

Every analyst using GC-MS should have a fundamental understanding of how a mass spectrum is generated and if a library match is correct or not. This course takes this a step further to enhance mass spectral knowledge. From learning to quickly recognise from the spectrum if the analyte is aliphatic or aromatic in nature; to learning to interpret the number of carbon atoms, heteroatoms and degree of unsaturation; and understand isotopes, isomers, logical losses, cleavages and rearrangements to produce a mass spectral fingerprint of the compound.

This course is classroom based and combines powerpoint presentations to introduce the theory with a high proportion of exercises on spectral data to reinforce the topics learned.

Who is this for? Anyone wishing to learn the fundamentals of mass spectral interpretation for the identification of unknowns or to enhance their understanding of fragmentation patterns produced from GC-MS analysis to aid in accurate identification when using library search programs.

This course is recommended for those who have a good background in organic chemistry and at least six months GC-MS experience.

Course dates & Venues: 25th - 27th March 2014 The Open University, Milton Keynes, UK

16th - 18th September 2014 The Open University, Milton Keynes, UK

Number of days: 3 days

Price: £595 plus 20% VAT

- Special offers:**
- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for this 3-day course.
 - *Student:* Discount of 10% for this 3-day course (valid student ID card required) if booked at least 4 weeks in advance.
 - *RSC Member:* Discount of 10% for this 3-day course (membership number required) if booked at least 4 weeks in advance.
 - *ChromSoc Member:* Discount of 10% for this 3-day course (membership number required) if booked at least 4 weeks in advance.
 - *Warwick alumni:* Discount of 10% for this 3-day course (membership number required) if booked at least 4 weeks in advance.
 - *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

Course Feedback: *"Most definitely found the course extremely educational and the tutor very knowledgeable, helpful and patient."* Siobhan Ryan a technologist from the Teagasc Food Research Centre (May 2013).

"The practical element of actually doing the interpretation. Learning the fragmentation pattern and how it works (was the most interesting topic)." Post-graduate researcher from a University (May 2013).

Generic laboratory based hands-on courses

These courses vary from 1 to 5 days and cater for those eager to combine theory with practice. They are a mixture of classroom-based presentations with hands-on hardware training within the laboratory environment and software training within the lab and/or classroom. The amount of hands-on training depends on the type of course and may be up to 50%. Our “hands-on” courses all have 50% of the time spent in the laboratory using the instrumentation.

5-day Complete Hands-on GC & GC-MS course

Course This course provides the theory of the GC and MS essential to any participant, along with the hands-on practical element in the laboratory to practice and re-enforce the theoretical knowledge. These courses are 50% theory and 50% practical in a lab environment.

Description:

This course addresses gases and plumbing, sample introduction, analytical columns, GC detectors (FID and ECD), mass-spectrometry and data analysis. The knowledge is then used to create methods, perform injections and change parameters to see the effects. The course discusses the need for maintenance along with practicals to carry out maintenance on both a GC and a GC-MS system such as liquid autosampler, inlet, columns, FID/ECD and quadrupole MS including tuning and ion source cleaning. A day is spent on troubleshooting a GC or GC-MS instrument and learning what problems can occur, with real problem solving on the instruments and data analysis software.

This course combines the five individual hands-on days covering Gas Chromatography, GC Maintenance, Gas Chromatography-Mass Spectrometry, MS Maintenance and GC-MS troubleshooting.

A FREE glossary on GC & GC-MS is provided with this course!

Who is this for?

This course is suitable for all levels of knowledge; however for complete beginners it is advisable to attend the 1-day Absolute Basics of GC & GC-MS first to get a good basic overview of the gas chromatography and GC-MS.

Course dates &

10th - 14th March 2014 The Open University, Milton Keynes, UK

Venues:

9th - 13th June 2014 The Open University, Milton Keynes, UK

8th - 12th September 2014 The Open University, Milton Keynes, UK

1st - 5th December 2014 The Open University, Milton Keynes, UK

Number of days:

5 days

Price:

£1,550 plus 20% VAT

Special offers:

- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for this 5-day course.
- *Student:* Discount of 10% for this 5-day course (valid student ID card required) if booked at least 4 weeks in advance.
- *RSC Member:* Discount of 10% for this 5-day course (membership number required) if booked at least 4 weeks in advance.
- *ChromSoc Member:* Discount of 10% for this 5-day course (membership number required) if booked at least 4 weeks in advance.
- *Warwick alumni:* Discount of 10% for this 5-day course (membership number required) if booked at least 4 weeks in advance.
- *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

Course feedback: *"[I enjoyed] everything, especially troubleshooting. I think this is the best course I have been on."*
Abdullah Al Khalaf from the Saudi Food and Drug Agency (March 2013).
"[I enjoyed] all of the course, especially troubleshooting." Azaa Al Shamli, a Chemistry Specialist from the Royal Court Affairs (March 2013).

Individual 1-day courses from the Complete Hands-on GC & GC-MS course

The individual days are available to enhance the knowledge in a particular area. These are:

1-day Hands-on GC Theory and Methods

Course Description: This one day course is spent learning the theory of gas chromatography and then using this knowledge to create split and splitless methods, perform manual and liquid autosampler injections and change oven temperature programs to optimise the separation of analytes detected with an FID. This course will cover the gas supplies, liquid autosampler, hot split and splitless injections, the analytical column and detection by FID and ECD.

This course is suitable for all levels of knowledge.

Course dates & Venues:	10 th March 2014	The Open University, Milton Keynes, UK
	9 th June 2014	The Open University, Milton Keynes, UK
	8 th September 2014	The Open University, Milton Keynes, UK
	1 st December 2014	The Open University, Milton Keynes, UK

1-day Hands-on GC Maintenance

Course Description: This one day course combines learning the reasons why maintenance is required, what happens if maintenance isn't performed and the signs of when maintenance is needed along with practicals carrying out maintenance on a gas chromatograph. This course will cover maintenance of the liquid autosampler, inlet, column and FID/ECD.

This course is suitable for those who have some knowledge of GC and beginners who have attended the Hands-on GC Theory & Methods course.

Course dates & Venues:	11 th March 2014	The Open University, Milton Keynes, UK
	10 th June 2014	The Open University, Milton Keynes, UK
	9 th September 2014	The Open University, Milton Keynes, UK
	2 nd December 2014	The Open University, Milton Keynes, UK

1-day Hands-on GC-MS Theory and Methods

Course Description: In this one day course, you spend the first part of the day learning the theory of mass-spectrometry and then use this knowledge to create GC-MS methods, perform injections and change MS parameters to see the effects. This course will cover MSD theory and practicals on a GC-quadrupole-MS.

This course is suitable for those with some knowledge of GC.

Note: This course will only focus only on the mass selective detector (MSD) and not the GC. Please refer to the GC course for specific training on that part of the instrument.

Course dates & Venues:	12 th March 2014	The Open University, Milton Keynes, UK
	11 th June 2014	The Open University, Milton Keynes, UK
	10 th September 2014	The Open University, Milton Keynes, UK
	3 rd December 2014	The Open University, Milton Keynes, UK

1-day Hands-on GC-MS Maintenance

Course Description: This one day course combines learning the reasons why maintenance is required, what happens if maintenance isn't performed and the signs of when maintenance is needed along with practicals carrying out maintenance on mass spectrometers. This course will cover maintenance of the quadrupole MS including tuning and ion source cleaning.

This course is suitable for those who have some knowledge of GC-MS and beginners who have attended the Hands-on Gas Chromatography and Mass Spectrometry Theory & Methods course.

Note: This course will only focus only on the mass selective detector (MSD) and not the GC. Please refer to the GC course for specific training on that part of the instrument.

Course dates & Venues:	13 th March 2014	The Open University, Milton Keynes, UK
	12 th June 2014	The Open University, Milton Keynes, UK
	11 th September 2014	The Open University, Milton Keynes, UK
	4 th December 2014	The Open University, Milton Keynes, UK

1-day Hands-on GC & GC-MS Troubleshooting

Course Description: This one day course combines learning how to go about troubleshooting GC and GC-MS instruments and what problems can occur, with real problem solving on the instruments and data analysis software. This course will cover troubleshooting the gas supply, autosampler, inlet, column, GC detector and MS including leaks, tune problems, GC & GC-MS methods and identifying if the GC or the MSD is the problem.

This course is suitable for those who have knowledge of GC or GC-MS and beginners who have attended the Hands-on GC Theory & Methods and Maintenance or GC-MS Theory & Methods and Maintenance courses.

Course dates & Venues:	14 th March 2014	The Open University, Milton Keynes, UK
	13 th June 2014	The Open University, Milton Keynes, UK
	12 th September 2014	The Open University, Milton Keynes, UK
	5 th December 2014	The Open University, Milton Keynes, UK

Number of days: 1 day each

Price: £450 plus 20% VAT for each day

Special offers:

- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for any course.
- *Student:* Discount of 10% for any course (valid student ID card required), if booked at least 4 weeks in advance.
- *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course; this applies for all 1-5 day courses.
- *RSC Member:* Discount of 10% for a 2, 3, 4 or 5-day course (membership number required) if booked at least 4 weeks in advance.
- *ChromSoc Member:* Discount of 10% for a 2, 3, 4 or 5-day course (membership number

required) if booked at least 4 weeks in advance.

- *Warwick alumni:* Discount of 10% for a 2, 3, 4 or 5-day course (membership number required) if booked at least 4 weeks in advance.
- *Combine* any two of the above for a 2-day course for £800 plus 20% VAT
- *Combine* any three of the above for a 3-day course for £1100 plus 20% VAT
- *Combine* any four of the above for a 4-day course for £1350 plus 20% VAT = a 25% discount!
- *Combine* all above for a 5-day course for £1550 plus 20% VAT = a 31% discount!

Course combinations:

4-day Hands-on Sample Preparation (Headspace | SPME | TD | Pyrolysis)

Course Description:

The Hands-On Sample Preparation course combines the 4 individual hands-on sample preparation days covering Headspace, Solid-Phase Micro-Extraction (SPME), Thermal Desorption (TD) and Pyrolysis.

These courses will teach you the theory for each sample preparation technique and you will perform practical exercises to use this knowledge to create methods, analyse samples and experiment with parameters. These courses have a 50:50 mix of theory and hands-on practicals in a laboratory environment.

Who is this for?

If you have reasonable gas chromatography experience but want further hands-on training on a new sampling technique, then this is the course is for you. Delegates should have a good knowledge of GC or GC-MS or have attended the Practical Essentials of GC & GC-MS or the Hands-on GC course. You can come for a 1-, 2-, 3 or 4- day course, learning all the techniques you need.

Course dates & Venues:

19th - 22nd May 2014 The Open University, Milton Keynes, UK
17th - 20th November 2014 The Open University, Milton Keynes, UK

Number of days:

4 days

Price:

£1,350 plus 20% VAT

Special offers:

- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for this 4-day course.
- *Student:* Discount of 10% for this 4-day course (valid student ID card required) if booked at least 4 weeks in advance.
- *RSC Member:* Discount of 10% for this 4-day course (membership number required) if booked at least 4 weeks in advance.
- *ChromSoc Member:* Discount of 10% for this 4-day course (membership number required) if booked at least 4 weeks in advance.
- *Warwick alumni:* Discount of 10% for this 4-day course (membership number required) if booked at least 4 weeks in advance.
- *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

Course Feedback:

"I enjoyed the way the presenter gave the course. I liked the useful slides and hand-outs." Fatima Al Wahshi, a Research Scientist from the Abu Dhabi Water and Electricity Company, who attended the 3-day course (Aug 2013).

"[I enjoyed] the mixture between the theoretical presentation and hands on the equipment for practical experiments." Celia Laurence, a research assistant from The Open University (Aug 2013).

"I enjoyed the 'Hands-on' experience gained." Tracy Warr, laboratory technician at Satra Technology

Centre, who attended the 1-day Thermal Desorption course (Aug 2012).

“(Pleased with) the knowledge of the presenter and the ability to actually see the instrument work.”
Research technician at a University who attended the 1-day Thermal Desorption course (Aug 2012).

Individual days from the Hands-on Sample Preparation course

1-day Hands-on Headspace

Course Description: This one day course is spent learning the theory of static and dynamic headspace and how to modify samples to improve results, then using this knowledge to create HS methods, analyse samples and experiment with parameters to see the effects.

This course will cover static and dynamic headspace.

This course requires knowledge of GC or GC-MS.

Course dates & Venues: 19th May 2014 The Open University, Milton Keynes, UK
17th November 2014 The Open University, Milton Keynes, UK

1-day Hands-on Solid-Phase Micro-Extraction (SPME)

Course Description: This one day course is spent learning the theory behind Solid-Phase Micro-Extraction and how to modify samples to improve results, then using this knowledge to create SPME methods, analyse samples and experiment with parameters to see the effects.

This course will cover Headspace-SPME and Immersion-SPME, SPME phases, SPME instrumentation & set up and troubleshooting. It will introduce related techniques like SBSE, SPE-TD and SPDE.

This course requires knowledge of GC or GC-MS.

Course dates & Venues: 20th May 2014 The Open University, Milton Keynes, UK
18th November 2014 The Open University, Milton Keynes, UK

1-day Hands-on Thermal Desorption (TD)

Course Description: This one day course begins with the theory of thermal desorption, types of samples that can be analysed using this technique, types of tube packing materials and how to collect samples. This knowledge is then used to create TD methods, collect and analyse samples and experiment with parameters to see the effects.

This course will cover the thermal desorption of gas-phase and solid-phase samples.

This course requires knowledge of GC or GC-MS.

Course dates & Venues: 21st May 2014 The Open University, Milton Keynes, UK
19th November 2014 The Open University, Milton Keynes, UK

1-day Hands-on Pyrolysis

Course Description: This one day course is spent learning the theory behind the different pyrolysis techniques and then puts this knowledge into practice in the lab, creating pyrolysis methods, analysing samples and changing parameters to see the effects. This course will cover analytical pyrolysis, samples that can be analysed, types of pyrolysis, instrumentation & set up and troubleshooting.

This course requires knowledge of GC or GC-MS.

Course dates & Venues:	22 nd May 2014 20 th November 2014	The Open University, Milton Keynes, UK The Open University, Milton Keynes, UK
Number of days:	1 day each	
Price:	£450 plus 20% VAT for each day	
Course offers:	<ul style="list-style-type: none"> ▪ <i>Early Bird:</i> Book at least 12 weeks in advance and receive a 10% discount for any course. ▪ <i>Student:</i> Discount of 10% for any course (valid student ID card required), if booked at least 4 weeks in advance. ▪ <i>Group Discount:</i> 4 colleagues from the same company can attend for the price of 3, when attending the same course; this applies for all 1-5 day courses. ▪ <i>RSC Member:</i> Discount of 10% for the 2, 3 or 4-day course (membership number required) if booked at least 4 weeks in advance. ▪ <i>ChromSoc Member:</i> Discount of 10% for the 2, 3 or 4-day course (membership number required) if booked at least 4 weeks in advance. ▪ <i>Warwick alumni:</i> Discount of 10% for the 2,3 or 4-day course (membership number required) if booked at least 4 weeks in advance. 	
Course combinations:	<ul style="list-style-type: none"> ▪ <i>Combine</i> any two of the above for a 2-day course for £800 plus 20% VAT ▪ <i>Combine</i> any three of the above for a 3-day course for £1,100 plus 20% VAT ▪ <i>Combine</i> any four of the above for a 4-day select for £1,350 plus 20% VAT = a 25% discount! 	

2-day Hands-on Advanced Injection (PTV & LVI)

Course Description:	The 2-day Hands-on Advanced Injection course combines the 2 advanced GC courses on the Programmable Temperature Vapouriser (PTV) and Large Volume Injection (LVI). These advanced injection techniques are very useful for optimising specific inlets and increased injections volume for greater analyte sensitivity.	
Who is this for?	This course will enable you to learn about and practice some advanced and powerful GC techniques which could be very useful for your analysis. Delegates should have a good knowledge of GC or GC-MS or have attended the Practical Essentials of GC & GC-MS or the Hands-on GC course.	
Course dates & Venues:	28 th - 29 th January 2014 8 th - 9 th July 2014	The Open University, Milton Keynes, UK The Open University, Milton Keynes, UK
Number of days:	2 days	
Price:	£800 plus 20% VAT	
Special offers:	<ul style="list-style-type: none"> ▪ <i>Early Bird:</i> Book at least 12 weeks in advance and receive a 10% discount for this 2-day course. ▪ <i>Student:</i> Discount of 10% for this 2-day course (valid student ID card required) if booked at least 4 weeks in advance. ▪ <i>RSC Member:</i> Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance. ▪ <i>ChromSoc Member:</i> Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance. 	

- *Warwick alumni:* Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance.
- *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

Course Feedback: *"Good use of lecture time translating into laboratory exercises to illustrate the point fully."*
International analytical sales support from an instrument manufacturer who attended LVI/PTV course (February 2013).

"Very good content and course material, and allowed time for questions and comments, and good mix between class and hands on." Senior analyst from an instrument manufacturer who attended who attended LVI/PTV course (February 2013).

"I learned a lot of little things that can really make a difference but I never thought about." Claudia Moeckel, Environmental Chemist, attended Anthias Hands-on PTV.

Individual days from the Hands-on Advanced Injection course

1-day Hands-on Programmable Temperature Vapourisers (PTVs)

Course Description: This one day course focuses on the added functionalities of PTVs over standard hot inlets as a truly multi-mode inlet. Part of the day will be spent looking at the theory and advantages of cold split and cold splitless injections and the uses for cold-trapping, high final inlet temperatures, large volume injections and additional techniques like thermal desorption and extraction.

The remainder of the day will be spent in the lab creating, using and optimising cold injection methods to analyse thermally labile and high molecular weight samples and looking at other PTV techniques.

This course requires knowledge of GC or GC-MS.

Note: This course will cover all PTV techniques but not large volume injections in great detail, please refer to the LVI course for more training on this technique.

Course dates & Venues: 28th January 2014 The Open University, Milton Keynes, UK
8th July 2014 The Open University, Milton Keynes, UK

1-day Hands-on Large Volume Injection (LVI)

Course Description: This one day course combines the theory and advantages behind the different large volume injection techniques with "hands-on" practicals to create, use and optimise LVI methods in the laboratory.

This course will cover rapid (at once), speed-controlled and multiple large volume injection (LVI) techniques.

This course requires knowledge of GC or GC-MS.

Note: This course will cover using PTV inlets for large volume injections only, please refer to the PTV course for other PTV techniques.

Course dates & Venues: 29th January 2014 The Open University, Milton Keynes, UK
9th July 2014 The Open University, Milton Keynes, UK

Number of days: 1 day each

Price: £450 plus 20% VAT for each day

Course offers:

- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for any course.
- *Student:* Discount of 10% for any course (valid student ID card required), if booked at least 4 weeks in advance.
- *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

2-day Hands-on GCxGC Operator (Flow & Thermal Modulation)

Course Description: The 2-day Hands-on GCxGC Operator course is designed to introduce the fundamental concepts of GCxGC with flow and thermal modulation. It combines a mixture of classroom based presentations with hands-on hardware and some software lab exercises to give you comprehensive training. It will review the use of the Agilent CFT flow modulator and the Zoex and Leco thermal modulators.

This course focuses on the hardware rather than the software aspects of GCxGC. It includes an introduction to Comprehensive two-dimensional gas chromatography; selection and installation of the column set into the modulator; creation of GCxGC methods; optimisation of a diesel sample using the standard column set; and the basic analysis of the data using Zoex GCImage software, provided by JSB, or the Leco ChromaToF software.

Who is this for? This advanced course requires a high level of knowledge of GC to attend. If you have difficult and complex samples and wish to explore improving the resolution of your work through two-dimensional gas chromatography, then you should attend this course.

This course complements the 2-day GCxGC Data Handling (Zoex GCImage) course.

Course dates & Venues: 29th - 30th April 2014 The Open University, Milton Keynes, UK
21st - 22nd October 2014 The Open University, Milton Keynes, UK

Number of days: 2 days

Price: £800 plus 20% VAT

Special offers:

- Book the 2-day Hands-on GCxGC Operator and 2-day GCxGC Data Handling courses together and get a 15% discount.
- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for this 2-day course.
- *Student:* Discount of 10% for this 2-day course (valid student ID card required) if booked at least 4 weeks in advance.
- *RSC Member:* Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance.
- *ChromSoc Member:* Discount of 10% for this 2-day course (membership number required) if

booked at least 4 weeks in advance.

- *Warwick alumni*: Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance.
- *Group Discount*: 4 colleagues from the same company can attend for the price of 3, when attending the same course.

Course Feedback

"(Enjoyed) Mode of presentation and course structure & style." Principle Programme Officer from an overseas Environmental Agency (March 2013).

Manufacturer and software specific training

These are practical and software courses which are based both within the classroom and laboratory environment. They have a strong practical focus on a specific manufacturer's hardware and/or software (e.g. Agilent Technologies' GC and GC-MS), or working through written exercises or performing tasks using the specific software on laptops.

4-day Comprehensive GC Training (Agilent 7890 GC with OpenLAB Chemstation)

Course Description: The four-day Comprehensive GC Training course introduces the fundamental theory of GC along with the operation, maintenance and troubleshooting of the Agilent 7890 Gas Chromatograph using GC OpenLab Chemstation software.

This course includes an introduction to gas chromatography, Agilent Chemstation configuration, an introduction to GC Chemstation, data acquisition and data analysis. It will discuss gas supply and handling; split/splitless and multi-mode inlets; capillary columns; detectors (FID and ECD); the autosampler; PC & data system; creating methods; integration and reporting; quantitation and calibrations; sequences; and retention time locking. This course also covers troubleshooting and maintenance of the autosampler, inlet, column, detector and data systems.

It combines a mixture of classroom based presentations with hands-on hardware and software lab exercises, to give you comprehensive training.

Who is this for? This course is primarily for analysts and technicians responsible for the operation, maintenance and troubleshooting of Agilent gas chromatographs.

Course dates & Venues: 10th - 13th February 2014 The Open University, Milton Keynes, UK
4th - 7th August 2014 The Open University, Milton Keynes, UK

Number of days: 4 days

Price: £1,200 plus 20% VAT

Special offers:

- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for this 4-day course.
- *Student:* Discount of 10% for this 4-day course (valid student ID card required) if booked at least 4 weeks in advance.
- *RSC Member:* Discount of 10% for this 4-day course (membership number required) if booked at least 4 weeks in advance.
- *ChromSoc Member:* Discount of 10% for this 4-day course (membership number required) if booked at least 4 weeks in advance.
- *Warwick alumni:* Discount of 10% for this 4-day course (membership number required) if booked at least 4 weeks in advance.
- *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

4-day Comprehensive GC Training (Agilent 7890 GC with OpenLAB EZChrom)

Course Description: The 4-day Comprehensive GC Training course introduces the fundamental theory of GC along with the operation, maintenance and troubleshooting of the Agilent 7890 Gas Chromatograph using GC OpenLab EZChrom software.

This course includes an introduction to gas chromatography, EZChrom configuration, an introduction to EZChrom, data acquisition and data analysis. It will discuss gas supply and handling; split/splitless and multi-mode inlets; capillary columns; detectors (FID and ECD); the autosampler; PC & data system; creating methods; integration and reporting; quantitation and calibrations; sequences; and retention time locking. This course also covers troubleshooting and maintenance of the autosampler, inlet, column, detector and data systems.

It combines a mixture of classroom based presentations with hands-on hardware and software lab exercises, to give you comprehensive training.

Who is this for? This course is primarily for analysts and technicians responsible for the operation, maintenance and troubleshooting of Agilent gas chromatographs.

Course dates & Venues: 28th - 31st October 2014 The Open University, Milton Keynes, UK

Number of days: 4 days

Price: £1,200 plus 20% VAT

Special offers:

- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for this 4-day course.
- *Student:* Discount of 10% for this 4-day course (valid student ID card required) if booked at least 4 weeks in advance.
- *RSC Member:* Discount of 10% for this 4-day course (membership number required) if booked at least 4 weeks in advance.
- *ChromSoc Member:* Discount of 10% for this 4-day course (membership number required) if booked at least 4 weeks in advance.
- *Warwick alumni:* Discount of 10% for this 4-day course (membership number required) if booked at least 4 weeks in advance.
- *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

4-day Comprehensive GC Training (Thermo TRACE GC with Xcalibur)

Course Description: The 4-day Comprehensive GC Training course introduces the fundamental theory of GC along with the operation, maintenance and troubleshooting of the Thermo TRACE Gas Chromatograph using Xcalibur software.

This course includes an introduction to gas chromatography, Xcalibur configuration, an introduction to Xcalibur, data acquisition and data analysis. It will discuss gas supply and handling; split/splitless and PTV inlets; capillary columns; Flame Ionisation Detector; the autosampler; PC & data system; creating methods; integration and reporting; quantitation and calibrations; and sequences. This course also covers troubleshooting and maintenance of the autosampler, inlet, column, detector and data systems.

It combines a mixture of classroom based presentations with hands-on hardware and software lab exercises, to give you comprehensive training.

Who is this for?	This course is primarily for analysts and technicians responsible for the operation, maintenance and troubleshooting of Thermo gas chromatographs.
Course dates & Venues:	15 th -18 th December 2014 The Open University, Milton Keynes, UK
Number of days:	4 days
Price:	£1,200 plus 20% VAT
Special offers:	<ul style="list-style-type: none"> ▪ <i>Early Bird</i>: Book at least 12 weeks in advance and receive a 10% discount for this 2-day course. ▪ <i>Student</i>: Discount of 10% for this 2-day course (valid student ID card required) if booked at least 4 weeks in advance. ▪ <i>RSC Member</i>: Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance. ▪ <i>ChromSoc Member</i>: Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance. ▪ <i>Warwick alumni</i>: Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance. ▪ <i>Group Discount</i>: 4 colleagues from the same company can attend for the price of 3, when attending the same course.

2-day Comprehensive GC Training (SRI GC with PeakSimple)

Course Description:	<p>This 2-day course is designed to introduce the fundamental concepts of gas chromatography and provide training on the operation of the SRI Instruments 8610C Gas Chromatographs.</p> <p>This course includes the use of the PeakSimple chromatography data system, demonstrating and applying the features of the software so that you have a good understanding of the data system and its capabilities. It will show you how to set up the instrument ready for your application and how to analyse a sample.</p> <p>This course covers an introduction to gas chromatography including inlets, columns and detectors used on the SRI GC; the basic operation of the gas chromatograph; the installation of the SRI Instruments GC; the installation of a packed or capillary GC column; an introduction to PeakSimple chromatography data system including data acquisition, data analysis, calibration, sequences and reporting; preventative and routine maintenance of the system.</p> <p>It combines a mixture of classroom based presentations with hands-on hardware and software lab exercises, to give you comprehensive training.</p>
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Who is this for?	This course is primarily for analysts and technicians responsible for the operation, maintenance and troubleshooting of SRI gas chromatographs.
Course dates & Venues:	24 th -26 th November 2014 The Open University, Milton Keynes, UK
Number of days:	2 days
Price:	£800 plus 20% VAT

- Special offers:**
- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for this 4-day course.
 - *Student:* Discount of 10% for this 4-day course (valid student ID card required) if booked at least 4 weeks in advance.
 - *RSC Member:* Discount of 10% for this 4-day course (membership number required) if booked at least 4 weeks in advance.
 - *ChromSoc Member:* Discount of 10% for this 4-day course (membership number required) if booked at least 4 weeks in advance.
 - *Warwick alumni:* Discount of 10% for this 4-day course (membership number required) if booked at least 4 weeks in advance.
 - *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

4-day Comprehensive GC-MS Training course (Agilent 5975 MSD)

Course Description: The four-day Comprehensive GC-MS Training course introduces the fundamental theory of quadrupole GC-MS along with the operation, maintenance and troubleshooting of the Agilent 5975 Mass Spectrometer using MSD Chemstation software.

This course includes an introduction to quadrupole mass spectrometry; hardware configuration; MS tuning; data acquisition in scan and selected ion monitoring (SIM) modes; qualitative & quantitative data analysis; reports; sequencing; and an introduction to retention time locking.

The course will train the operator to perform the maintenance required to ensure the smooth running of the instrument. The course also discusses the principles of troubleshooting by examining the effects of faults in the system on the chromatographic output. This course includes an introduction to troubleshooting and maintenance focusing on tunes & diagnostics, GC considerations, vacuum system, ion source, quadrupole mass filter and MS detector.

It combines a mixture of classroom based presentations with hands-on software and hardware lab exercises, to give you comprehensive training.

Who is this for? This course is primarily for analysts and technicians responsible for the operation, maintenance and troubleshooting of Agilent quadrupole GC-MS instruments with MSD Chemstation.

Course dates & Venues: 12th - 15th May 2014 The Open University, Milton Keynes, UK
10th - 13th November 2014 The Open University, Milton Keynes, UK

Number of days: 4 days

Price: £1,200 plus 20% VAT

- Special offers:**
- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for this 4-day course.
 - *Student:* Discount of 10% for this 4-day course (valid student ID card required) if booked at least 4 weeks in advance.
 - *RSC Member:* Discount of 10% for this 4-day course (membership number required), if booked at least 4 weeks in advance.
 - *ChromSoc Member:* Discount of 10% for this 4-day course (membership number required), if booked at least 4 weeks in advance.
 - *Warwick alumni:* Discount of 10% for this 4-day course (membership number required) if booked at least 4 weeks in advance.

- *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

1-day Carrier Gas Flow Management (Agilent CFT)

Course Description: This one day course mixes classroom and laboratory training and is designed for those who want to enhance their skills in the use of Agilent CFT devices, like the purged and non-purged Agilent splitters, QuickSwap and optimized Tee systems to manage their carrier gas flow through the GC system.

Applications include splitting to multiple detectors, using multiple columns into a single detector, back flushing through the pre-column or analytical column or changing the column without venting the mass spectrometer.

The course includes the selection of columns & restrictors, installation of columns into these devices, system configuration, method optimization and the development of backflushing skills.

Who is this for? This course is aimed at those with good experience of GC or GC-MS system and who want to explore advanced Agilent CFT configurations for routine and non-routine samples.

Course dates & Venues: 30th January 2014 The Open University, Milton Keynes, UK
10th July 2014 The Open University, Milton Keynes, UK

Number of days: 1 day

Price: £450 plus 20% VAT

- Special offers:**
- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount on this 1-day course.
 - *Student:* Discount of 10% for this 1-day course (valid student ID card required), if booked at least 4 weeks in advance.
 - *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

1-day Introduction to Heart-cutting (Agilent Deans Switch)

Course Description: This one day course is designed to introduce the fundamental concepts of GC+GC with the operation of the Agilent Deans Switch flow modulator. It combines a mixture of classroom based presentations with hands-on software and hardware lab exercises to give you comprehensive training.

This course includes an introduction to heart-cutting gas chromatography; selection and installation of the column set into the CFT device; development of the method and analysis of the data.

Who is this for? This course is for someone experienced in gas chromatography. If you have difficult and complex samples and wish to explore improving the resolution of your work through heart-cutting, then you should attend this course.

Course dates & Venues: 28th April 2014 The Open University, Milton Keynes, UK
20th October 2014 The Open University, Milton Keynes, UK

Number of days: 1 day

Price: £450 plus 20% VAT

- Special offers:**
- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for this 1-day course.
 - *Student:* Discount of 10% for this 1-day course (valid student ID card required), if booked at least 4 weeks in advance.
 - *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

2-day GCxGC Data Handling (Zoex GCImage)

Course Description: This two day course, run in conjunction with JSB who provide the software, will focus on on the theory and advantages of comprehensive multi-dimensional gas chromatography using either thermal or flow modulation and then you can experience the power of GCxGC(-MS) by analysing and experimenting with some previously acquired data using GC Image software.

This course will cover GCxGC and Zoex GCImage software. The course will give an overview of GC Image software and will detail its fundamental operation including baseline removal, peak (blob) detection, quantification and chemical identification.

This course mixes 50% presentations with 50% practical exercises using the software to get a good grasp of it's capabilities in processing your GCxGC(-MS) data.

Who is this for? This course is for someone experienced in gas chromatography but who may or may not have experience of GCxGC.

This course complements the 2-day Hands-on GCxGC Operators course.

Course dates & Venues: 1st - 2nd May 2014 The Open University, Milton Keynes, UK

23rd - 24th October 2014 The Open University, Milton Keynes, UK

Number of days: 2 days

Price: £800 plus 20% VAT

- Special offers:**
- Book the 2-day Hands-on GCxGC Operator and 2-day GCxGC Data Handling courses together and get an additional 10% discount.
 - *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for this 2-day course.
 - *Student:* Discount of 10% for this 2-day course (valid student ID card required) if booked at least 4 weeks in advance.
 - *RSC Member:* Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance.
 - *ChromSoc Member:* Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance.
 - *Warwick alumni:* Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance.
 - *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

1-day Basics of Deconvolution (AMDIS)

Course Description This one day classroom based course teaches you the theory of how to use this powerful Automated Mass Spectral Deconvolution and Identification System software to process your GC-MS data through presentations and demonstrations by the course instructor.

Who is this for? If you need to understand how deconvolution works with the AMDIS software, then come along and learn from this course. This course is for someone who has fundamental knowledge of GC-MS.

Course dates & Venues: 17th February 2014 The Open University, Milton Keynes, UK
8th August 2014 The Open University, Milton Keynes, UK

Number of days: 1 day

Price: £220 plus 20% VAT

Special offers:

- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount on this 1-day course.
- *Student:* Discount of 10% for this 1-day course (valid student ID card required), if booked at least 4 weeks in advance.
- *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

2-day Applied Deconvolution (AMDIS)

Course Description: This two day practical software course on the powerful Automated Mass Spectral Deconvolution and Identification System software mixes 50% presentations with 50% practical exercises using the software to get a good grasp of it's capabilities in performing deconvolution to process your GC-MS data.

If you have complex samples with little chromatographic resolution or you need to check you have no co-elutions in your chromatogram, learn about using your analytical resolution with mass spectral deconvolution to unravel your mixed mass spectra for confirmation or identification of your co-eluting peaks.

Who is this for? If you need practical guidance to help you understand how to use AMDIS software to make the most of your analytical resolution to perform deconvolution and obtained cleaned-up mass spectra, then this is a course for you.

This course requires fundamental knowledge of GC-MS and some background in understanding mass spectra.

Course dates & Venues: 18th - 19th June 2014 The Open University, Milton Keynes, UK
10th - 11th December 2014 The Open University, Milton Keynes, UK

Number of days: 2 days

Price: £595 plus 20% VAT

- Special offers:**
- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount for this 2-day course.
 - *Student:* Discount of 10% for this 2-day course (valid student ID card required) if booked at least 4 weeks in advance.
 - *RSC Member:* Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance.
 - *ChromSoc Member:* Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance.
 - *Warwick alumni:* Discount of 10% for this 2-day course (membership number required) if booked at least 4 weeks in advance.
 - *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

1-day Automated Deconvolution and Reporting (Agilent DRS)

Course Description: This one day course will cover the fundamentals of the Agilent Deconvolution Reporting Software, which is an additional application package to the Agilent GC-MSD Chemstation software and combines the results from the MSD Chemstation, AMDIS and the NIST search engine into a single report.

This course will take you through the individual steps to create your own DRS libraries; from creating a retention time locked GC-MS method in MSD Chemstation which produces high quality data; to creating a MSD Chemstation user library which is then converted to a quantitation database and an AMDIS library; to optimising AMDIS settings; creating a DRS method to control the 3 pieces of software; and finally generate and interpret a report. The final part of the course is learning how to maintain and troubleshoot the DRS method, including where to add new compounds.

Those attending the DRS course will receive a FREE poster on the DRS guide taught throughout the course.

Who is this for? This course is for an experienced user of the Agilent MSD Chemstation who needs to know how to produce automated reports in the laboratory.

Course dates & Venues: 28th March 2014 The Open University, Milton Keynes, UK
19th September 2014 The Open University, Milton Keynes, UK

Number of days: 1 day

Price: £400 plus 20% VAT

- Special offers:**
- *Early Bird:* Book at least 12 weeks in advance and receive a 10% discount on this 1-day course.
 - *Student:* Discount of 10% for this 1-day course (valid student ID card required), if booked at least 4 weeks in advance.
 - *Group Discount:* 4 colleagues from the same company can attend for the price of 3, when attending the same course.

Additional Information

For course descriptions or to download a brochure please visit www.anthias.co.uk. For a full course outline and any other questions, please email courses@anthias.co.uk.

Terms & Conditions

1. All courses and material will be presented in native English language using high visual content, but the course assumes a reasonable understanding of English on every delegate's part.
2. All delegates are requested to complete a pre-course questionnaire in order to ascertain their level of knowledge. Contact will be made by the course instructor in case of any concerns prior to the course.
3. Payment of course fees must be received before the course start date. Full payment or a purchase order is required at the time of booking. The booking will be provisionally kept for 1 week, until payment or a purchase order is received. When payment has been received in full or a formal purchase order has been provided, the delegate's place on the course will then be confirmed. If paying by purchase order, full payment must be made within 30 days of the invoice, or 2 weeks before the start of the course, whichever is sooner.
4. For late bookings, if payment is not received prior to the delegate attending the Course, Anthias Consulting reserves the right to refuse admission until payment has been made in full.
5. Course cancellation will incur a penalty of a deductible amount per person: minus an admin fee up to 8 weeks before the course start date; -50% up to 6 weeks before the course; -75% up to 4 weeks before the course; -100% up to 2 weeks before the course. Under exceptional circumstances, an alternative course may be offered without incurring any penalty.
6. For classroom-based courses, a minimum of 5 attendees will be required for a course to proceed; a maximum of 15 analysts will be accommodated on any course at any one time. For laboratory-based courses, a minimum of 2 attendees will be required for a course to proceed: a maximum of 4 to 6 analysts, depending on the course, will be accommodated on any course at any one time. Anthias Consulting Ltd. reserves the right to cancel a course with a full refund of course fees, or provision of an acceptable alternative course, due to under subscription or other unforeseeable circumstances without incurring any due penalty. Course attendees will be notified at least 2 weeks in advance by email of any changes to the course schedule for which they have registered. Anthias Consulting Ltd will not be liable for any costs incurred by airlines or hotels as a result of any changes, or any implication of assignments at work for which training is required.
7. Course prices are exclusive of VAT. VAT will be charged at the standard rate of 20%.
8. Anthias Consulting welcomes delegates from overseas. Once full payment for the course has been received, a visa invitation letter can be provided, which states that a delegate is registered to attend a training course. Anthias Consulting has no influence over any embassy and is unable to guarantee that a visa will be granted. Delegates are solely responsible for obtaining a visa, and failure to do so will not make the delegate or delegate's company exempt from the cancellation penalty. Anthias Consulting advises delegates from overseas to book and pay for a course and apply for a visa well in advance of the course start date, so that if required a full refund minus an admin fee can be paid up to 8 weeks before the course start date.
9. Anthias Consulting does not accept responsibility for flights or hotel bookings or their cancellation policies. Delegates therefore book flights and hotels at their own risk. Delegates and their companies are responsible for ensuring they have adequate travel permits and visas for course attendance, as well as adequate travel & medical insurance cover.

10. Delegates are not permitted to bring samples onto the courses, there most likely will not be an instrument available to analyse such samples. We advise delegates to bring in their existing chromatograms for discussion instead (where appropriate, according to the course), although Anthias Consulting cannot promise to answer delegate's problems relating to their individual areas of work.
11. Discounts: Offers cannot be combined, except where stated.
12. Anthias Consulting accepts payment by cheque, BACS, faster payments, bank transfer or credit card. Cash payments are not accepted. All payments must be made in UK pounds. A card processing fee of 2.83% will be added for all payments made by credit card.
13. Payments made from a non-GBP account are subject to a £10 admin fee.
14. All invoices must be paid in full; bank commission charges are not accepted.
15. Prompt payment is much appreciated. Anthias Consulting will exercise their statutory right to claim interest at 8% plus the Bank of England base rate, and compensation for debt recovery costs under the Late Payment legislation.