



FUNDAMENTALS & OPERATION OF SHIMADZU UV-VIS SPECTROPHOTOMETER

Course Description:

Course constructed for beginners based on Shimadzu UV2600. It introduces the basic concepts, theories and applications of UV-Vis spectrometer. Computer software operation base on UVProbe software.

Day1

UV-Vis Spectrophotometer theories and hardware review. Quantitation analysis by building calibration curve, spectrum scan analysis, reporting and basic maintenance.

CUSTOMER SUPPORT CENTRE

Dates

3rd /7/2019

6th /1/2020

Duration & Time

1 Day

9.30am - 5.00pm

CODE

S-UV (SML-8TRG135)

Fees

RM 250 per person

Ang May Yen (mayyen@shimadzu.com.my)

Shimadzu Malaysia Sdn Bhd (Co. No. 1108213-T)

No. 6, Lorong Teknologi 3/4 A, Nouvelle Industrial Park 2, Taman Sains Selangor 1, Kota Damansara, 47810 Petaling Jaya, Selangor Darul Ehsan, Malaysia.





FUNDAMENTALS & OPERATION OF SHIMADZU FTIR

Course Description:

This course is designed base on Shimadzu IRTracer-100 with LabSolutions IR for beginners. It introduces the basic concepts, theories and applications of FTIR.

Day1:

Review of principle and instrumental basics of FTIR. Maintenance and instrumentation care. Operation of FTIR analysis of solid and liquid samples using single bounce ATR.

Day 2 (half day):

Qualitative analysis which includes FTIR spectrum analysis, library search and database creation.

CUSTOMER SUPPORT CENTRE

Dates

5th - 6th /8/2019

 $4^{th} - 5^{th} / 3/2020$

Duration & Time

1½ Days

9.30am – 5.00pm

CODE

S-FTIR (SML-8TRG135)

Fees

RM 350 per person

Contact person

Ang May Yen (mayyen@shimadzu.com.my)

Shimadzu Malaysia Sdn Bhd (Co. No. 1108213-T)

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FUNDAMENTALS & OPERATION OF SHIMADZU TOC-L SERIES WITH AUTOSAMPLER ASI-L.

Course Description:

This course is designed base on Shimadzu TOC-L series with auto sampler for beginners. It introduces the basic concepts, theories and applications of TOC. Computer software operation base on TOC Control L software.

<u>Day1:</u>

Review of "Total Organic Carbon (TOC)" principles and instrumentation. Introduction to standard solution preparations. Basic maintenance and care for TOC-L series

Day 2:

Operations of TOC-L series with software. Analysis of standard training sample including calibration curve set-up and sample analysis.

CUSTOMER SUPPORT CENTRE

Dates

5th - 6th /8/2019

2nd - 3rd /3/2020

Duration & Time

2 Days

9.30am - 5.00pm

CODE

S-TOC (SML-8TRG135)

Fees

RM 350 per person

Contact person

Ang May Yen (mayyen@shimadzu.com.my)

Shimadzu Malaysia Sdn Bhd (Co. No. 1108213-T)

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FUNDAMENTALS & OPERATION OF SHIMADZU AA-7000 WITH AUTO-SAMPLER ASC-7000.

Course Description:

This course is designed base on Shimadzu AA-7000 with auto sampler using the WizAArd software for beginners. It introduces the basic concepts, theories and applications of AAS.

Day1:

Review of principle and instrumental basics of AAS. Introduction to standard solution preparation and precautions. Maintenance and instrumentation care.

Day 2:

Operation of AA-7000 using the WizAArd software. Analysis of standard training sample using flame and graphite method. Setting of methods and calibration curve set-up.

Day 3 (half day):

Set-up and preparations of HVG analysis and its operations including method setup and basic precautions.

CUSTOMER SUPPORT CENTRE

Dates

24th - 25th /4/2019

 $9^{th} - 10^{th} / 10/2019$

Duration & Time

2½ Days

9.30am – 5.00pm

CODE

S-AAS (SML-8TRG135)

Fees

RM 500 per person

Contact person

Ang May Yen (mayyen@shimadzu.com.my)

Shimadzu Malaysia Sdn Bhd (Co. No. 1108213-T)

No. 6, Lorong Teknologi 3/4 A, Nouvelle Industrial Park 2, Taman Sains Selangor 1, Kota Damansara, 47810 Petaling Jaya, Selangor Darul Ehsan, Malaysia.





FUNDAMENTALS & OPERATION OF SHIMADZU GC-2030 SERIES

Course Description:

This course is designed base on Shimadzu GC2030 series with capillary columns for beginners. It introduces the basic concepts, theories and applications of GC-FID. Computer software operation base on LabSolutions GC software.

<u>Day 1</u>

Review of Chromatography principles, Gas Chromatography instrumentation hardware functions. Introduction to split/splitless injector and flame ionization detector. Capillary column handling, installation and conditioning/maintenance. Basic maintenance and care for GC2030 & GC2010 series.

Day 2

Operation of GC2010 series with GC software. Analysis of standard training sample mixtures. Setting of calibration curve and quantitation.

CUSTOMER SUPPORT CENTRE

Dates

4th - 5th /7/2019

7th - 8th /1/2020

Duration & Time

2 Days

9.30am – 5.00pm

CODE

S-GC (SML-8TRG135)

Fees

RM 450 per person

Contact person:

Ang May Yen (mayyen@shimadzu.com.my)

Shimadzu Malaysia Sdn Bhd (Co. No. 1108213-T)

No. 6, Lorong Teknologi 3/4 A, Nouvelle Industrial Park 2, Taman Sains Selangor 1, Kota Damansara, 47810 Petaling Jaya, Selangor Darul Ehsan, Malaysia.





FUNDAMENTALS & OPERATION OF SHIMADZU GCMS QP 2010 SERIES

Course Description:

This course is designed for beginners in GC/MS. It introduces the basic concepts, theories and applications of GC/MS.

Day 1:

Review of GC/MS principle and instrumentation. Introduction to detail hardware: injector and different parts of mass spectrometer. Role of vacuum, operation of pumps and introduction to auto-tuning. GC/MS operations and processing (SCAN mode). Qualitative analysis including library search functions.

Day 2:

GCMS operations and processing (SIM mode). Quantitation analysis and calibration curve. General reporting of GC/MS results.

Day 3 (half day):

Introduction to MS Navigator and basic user maintenance. Column installation & Ion source cleaning.

CUSTOMER SUPPORT CENTRE

Dates

17th - 19th /6/2019

23rd- 25th /9/2019

13th - 15th /1/2020

Duration & Time

 $2\frac{1}{2}$ Days

9.30am - 5.00pm

CODE

S-GCMS (SML-8TRG135)

Fees

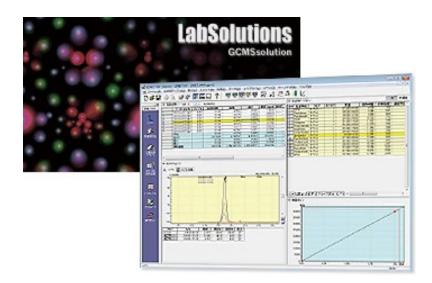
RM 600 per person

Ang May Yen (mayyen@shimadzu.com.my)

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ADVANCE OPERATION OF SHIMADZU LabSolutions GCMSsolution SOFTWARE

(Automatic Kovats Retention Index setup & its value in simplifying everyday analysis)

Course Description:

This course is designed for advance user of Shimadzu GCMS. It covers the principle of Kovats Retention Index, setup and its many usage:

- 1) Automatic Setup of Retention Index function.
- 2) Creation of Retention Index able private library database.
- 3) Library Search function in cooperating Retention Index.
- 4) AART (Automatic Adjustment of Retention Time) function: Simplifies method update and method transfers.

** Prerequisite: Basic Knowledge in using Shimadzu GCMS or GCMS/MS is a must**

CUSTOMER SUPPORT CENTRE

Date 20th /6/2019

Duration & Time

1 Days

9.30am – 5.00pm

CODE

AD-GCMS (SML-8TRG135)

Fees

RM 350 per person

Contact person

Ang May Yen (mayyen@shimadzu.com.my)

Shimadzu Malaysia Sdn Bhd (Co. No. 1108213-T)





FUNDAMENTALS & OPERATION OF SHIMADZU GCMS-TQ 8040

Course Description:

This course is designed for beginners in GC/MS/MS analysis. It introduces the basic concepts, theories and applications of GC/MS/MS.

Day 1:

Review of GC/MS/MS principle and instrumentation. Introduction to different modes of operation. Understanding the GC/MS/MS auto-tuning file. Setup of Q3 and product ion scan. Automatic MRM optimization setup and steps.

Day 2:

Quantitation compound table creation. Generation of calibration curve and general reporting of GC/MS/MS results.

** Prerequisite: Basic Knowledge in GCMS Single Quadrupole is a must.**

CUSTOMER SUPPORT CENTRE

Dates

26th - 27th /9/2019

16th - 17th /1/2020

Duration & Time

2 Days

9.30am - 5.00pm

CODE

S-GCMS/MS (SML-8TRG135)

Fees

RM 600 per person

Contact person

Ang May Yen (mayyen@shimadzu.com.my)

Shimadzu Malaysia Sdn Bhd (Co. No. 1108213-T)

No. 6, Lorong Teknologi 3/4 A, Nouvelle Industrial Park 2, Taman Sains Selangor 1, Kota Damansara, 47810 Petaling Jaya, Selangor Darul Ehsan, Malaysia.





FUNDAMENTALS & OPERATION OF SHIMADZU PROMINENCE SERIES

Course Description:

Course is constructed for beginners based on Shimadzu Prominence HPLC series with mainly UV detector. It introduces the basic concepts, theories and applications of HPLC. Computer software operation base on LabSolutions LC software.

Day1

HPLC principle and instrumentation review. Introduction to different modules and different modes of operation. Binary mixing and quaternary mixing. Column conditioning and operation of HPLC. Effect of mobile phase polarity and importance of buffers.

Day 2

Operation of HPLC using the LabSolution LC software. Quantitation analysis and calibration curve. Introduction to HPLC maintenance guides and QC functions. Basic user maintenance including check valves cleaning and detector cell check.

CUSTOMER SUPPORT CENTRE

Dates

1st - 2nd /7/2019

 $7^{th} - 8^{th} / 10/2019$

Duration & Time

2 Days

9.30am - 5.00pm

CODE

S-HPLC (SML-8TRG135)

Fees

RM 450 per person

Contact person:

Ang May Yen (mayyen@shimadzu.com.my)

Shimadzu Malaysia Sdn Bhd (Co. No. 1108213-T)

No. 6, Lorong Teknologi 3/4 A, Nouvelle Industrial Park 2, Taman Sains Selangor 1, Kota Damansara, 47810 Petaling Jaya, Selangor Darul Ehsan, Malaysia.





FUNDAMENTALS & OPERATION OF SHIMADZU NEXERA SERIES

Course Description:

This course is designed base on Shimadzu NEXERA UHPLC series (PDA detector) with LabSolution LC Software for beginners. It introduces the basic concepts, theories and applications of UHPLC.

Day1

UHPLC principle and instrumentation review. Column conditioning and operation of UHPLC. Effect of mobile phase polarity and importance of buffers.

Day 2

Operation of UHPLC. Quantitation analysis, calibration curve and reporting. Introduction to UHPLC maintenance guides and QC functions. Basic user maintenance including check valves cleaning and detector cell check.

CUSTOMER SUPPORT CENTRE

Dates

8th - 9th /7/2019

17th - 18th /2/2020

Duration & Time

2 Days

9.30am - 5.00pm

CODE

S-UHPLC (SML-8TRG135)

Fees

RM 500 per person

Ang May Yen (mayyen@shimadzu.com.my)

Shimadzu Malaysia Sdn Bhd (Co. No. 1108213-T)

No. 6, Lorong Teknologi 3/4 A, Nouvelle Industrial Park 2, Taman Sains Selangor 1, Kota Damansara, 47810 Petaling Jaya, Selangor Darul Ehsan, Malaysia.





FUNDAMENTALS & OPERATION OF SHIMADZU LCMS 8050

Course Description:

This course is designed base on Shimadzu LCMS 80 series with LabSolution LCMS Software. It introduces the basic concepts, theories and applications of LCMS Triple Quadruple system.

<u>Day 1</u>

LCMS Triple Quadruple system principle and instrumentation review. Operation of LCMS using LabSolution LCMS Software. Introduction to different modules and different modes of operation. Setup of Q3 and product ion scan.

Day 2

MRM optimization and quantitation compound table creation. Generation of calibration curve and general reporting of LCMS results. Setting up of private LCMS/MS database.

Day 3 (half day):

Basic user maintenance: Ionization probe (ESI) & DL removal and clean up.

CUSTOMER SUPPORT CENTRE

Dates

5th - 8th /8/2019

 $3^{rd} - 5^{th} / 2/2020$

Duration & Time

2 1/2 Days

9.30am – 5.00pm

CODE

S-LCMS (SML-8TRG135)

Fees

RM 600 per person

Ang May Yen (mayyen@shimadzu.com.my)

Shimadzu Malaysia Sdn Bhd (Co. No. 1108213-T)

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