

2024 COURSE DIRECTORY

TA INSTRUMENTS ONLINE TRAINING COURSES



TA Instruments – a Division of Waters Pacific Pte. Ltd.

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[Map and Directions](#)

DSC THEORY & APPLICATIONS COURSE

TIME	FEES	RELEVANCE
9.00 AM - 5.00 PM	SGD 0	● ○

This course consists of two sessions: lecture and demonstration, designed to familiarize users with the Differential Scanning Calorimetry (DSC) technique. This lecture is mainly designed around the Discovery instruments, with a demonstration using the latest Discovery DSC analyzer.

The course will cover:

- Theory of operation and Instrumentation
- Calibration
- Applications
- Overview of advanced DSC techniques:
- Heat Capacity, and Modulated DSC
- Experimental parameters
- Software operation
- Running Samples
- Data Analysis & Interpretation

This one-day course will be held in both the classroom and laboratory, in a group setting of no more than 20 attendees. Attendees shall witness a DSC experiment setup, sample preparation, operation technique and data analysis.

DSC HANDS-ON COURSE

TIME	FEES	COURSE CODE	RELEVANCE
9.00 AM - 5.00 PM	SGD 480*	ALC000662	○

This course consists of lecture and hands-on session with majority time in the lab, working on Differential Scanning Calorimeter (DSC) instruments, running samples, and analyzing data. Lecture mainly designed around the Discovery and Q series instruments, with hands-on operation using the latest Discovery DSC 2500 analyzer. Attendees is recommended to have also taken the DSC Theory and Application Course prior joining this hands-on course.

The course will cover:

- Overview of DSC Theory
- Optimization of Standard DSC experiment and Modulated DSC experiment
 - Instruments Calibrations
 - Sample and Instruments Preparation
- Experimental Conditions and their effects
- Data Reduction and Presentation
- Experimental parameters
- Software operation
- Running Samples
- Data Analysis & Interpretation

This one-day course will be held in both the classroom and laboratory, in a group setting of no more than 8 attendees, with training materials provided. Attendees will experience hands-on DSC experiment setup, sample preparation, system operation and data analysis.

Attendees are welcome to bring along samples for analysis during this course, and in the event if we cannot complete all samples, we could discuss and recommend experiment's procedure. Sample can include polymers, dispersions, and calibration materials

TGA THEORY & APPLICATIONS COURSE

TIME	FEES	RELEVANCE
9.00 AM - 5.00 PM	SGD 0	● ○

This course consists of two sessions: lecture and demonstration, designed to familiarize user with Thermogravimetry (TGA) technique. Lecture mainly designed around the Discovery instruments, with demonstration using the latest Discovery TGA analyzer.

The course will cover:

- Theory of operation and instrumentati
- Calibrations
- Applications
- Overview of advanced TGA techniques:
- Hi-Res TGA, Automated Stepwise Isothermal, and Modulated TGA
- Experimental parameters
- Software operation
- Running samples
- Data analysis & interpretation

This one-day course to be held in both classroom and laboratory, in a group setting of no more than 20 attendees. Attendees shall witness DSC experiment setup, sample preparation, operation technique and data analysis.

TGA HANDS-ON COURSE

TIME	FEES	COURSE CODE	RELEVANCE
9.00 AM - 5.00 PM	SGD 480*	ALC000662	○

This training course consists of two sessions, lecture, and hands-on sessions. Lecture-based session is designed around the Discovery series instruments. Hands-On session covers the New Discovery TGA 550 analyzer.

The course will cover:

- Overview of TGA Theory
- Optimization of Standard TGA experiment and Advanced TGA techniques
- Maintenance and Precautions
- Experimental parameters
- Software operation
- Running Samples
- Data Analysis & Interpretation

This one-day course to be held in both classroom and laboratory, in a group setting of no more than 8 attendees, with training materials provided. Attendees to experience hands-on DSC experiment setup, sample preparation, system operation and data analysis.

Attendees are welcome to bring along samples for analysis during this course, and in the event if we cannot complete all samples, we could discuss and recommend experiment's procedure. Sample can include polymers, dispersions, and calibration materials.

DMA THEORY & APPLICATIONS COURSE

TIME	FEES	COURSE CODE	RELEVANCE
9.00 AM - 5.00 PM	SGD 480*	ALC000662	● ○

This course consists of two sessions, lecture and hands-on. Both lecture-based and hands-on sessions are designed around the Discovery DMA 850 instruments.

The course will cover:

- Theory of operation
- Instrumentation
- Calibration
- Applications
- Experimental parameters
- Software operation
- Running Samples
- Data Analysis & Interpretation

This one-day course to be held in the classroom and laboratory, in a group setting of no more than 8 attendees, with training materials provided. Attendees to experience hands-on DMA experiments setups, sample preparation, and data analysis.

Attendees are welcome to bring along samples for analysis during this course, and in the event if we cannot complete all samples, we could discuss and recommend experiment's procedure. Sample can include polymers, dispersions, and calibration materials.

RHEOLOGY THEORY & APPLICATIONS COURSE

TIME	FEES	COURSE CODE	RELEVANCE
9.00 AM - 5.00 PM	SGD 480*	ALC000663	● ○

This course consists of two sessions, lecture and hands-on. Lecture-based session is designed around the AR-series and Discovery series rheometers. Hands-On session covers the TRIOS and Discovery Hybrid Rheometer.

The course will cover:

- Theory of operation
- Instrumentation
- Calibration
- Applications
- Experimental parameters
- Software operation
- Running Samples
- Data Analysis & Interpretation

This one-day training course to be held in the classroom and laboratory, in a group setting of no more than 8 attendees, with training materials provided. Attendees to experience hands-on rheological experiment setups, sample preparation and data analysis.

Attendees are welcome to bring along samples for analysis during this course, and in the event if we cannot complete all samples, we could discuss and recommend experiment's procedure. Sample can include polymers, dispersions, and calibration materials.

LEGEND

- Any new or existing user looking for basic theory, calibration information, and/or diverse application examples. Recommended to have a minimum of one-month experience using the instrument.
- Any new or existing user looking for advanced techniques and/or application examples, ways of optimization, maintenance & precautions. It is recommended for attendees with a minimum of two-month experience using the instruments.

CALENDAR

Dates subject to change

COURSE	MARCH	JUNE	NOVEMBER	DECEMBER
DSC Theory & Applications Course	4 th	3 rd	4 th	
DSC Hands-on Course	5 th	4 th	5 th	
TGA Theory & Applications Course	7 th	6 th	7 th	
TGA Hands-On Course	8 th	7 th	8 th	
DMA Theory & Applications Course		19 th		12 th
Rheology Theory and Applications Course		20 th		13 th

REGISTRATION

Kindly fill out the following form if you are interested to join this training course and email it to Josephine.Lee@waters.com. Closing date will be one week before the training date.

Salutation:	
First Name:	
Last Name:	
Company/University/Institution:	
School/Department:	
Registration type:	New system purchase: _____ Serial number & Commissioning date: _____ Others: _____
Email:	
Telephone Number:	
Course Name:	Date: _____

Seats are limited, registration is based on a first come, first served basis. Please indicate the date that you prefer. Lunch and refreshments will be provided. If you have any dietary restriction (vegetarian/halal/no beef/no seafood), please indicate below.