

GC-101

# Introduction to GC Instrumentation – Nexis GC-2030

This course consists of classroom and laboratory activities.

**Duration:** 3 days

**Items needed:** Everything needed is provided in the class. A personal laptop is recommended.



AA/ICP-MS

Balances

Biotech/MALDI

EDX-RF/XRD

Fluorescence

## Course Description

This course covers the skills required by the analyst to successfully analyze unknown samples using a Shimadzu gas chromatograph and LabSolutions software. Students will learn to operate the GC, create methods, acquire and process data, calibrate methods, and report results. Routine maintenance and fundamental troubleshooting will also be covered.

FTIR

GC

## Learning Outcomes

Learning outcomes are the competencies the learner will acquire during this course. At the end of this course the learner will be able to:

- Identify the components of a gas chromatograph
- Start up an instrument and prepare for analysis
- Acquire chromatographic data for standards and unknowns
- Use LabSolutions software to analyze data (integrate peaks, generate calibration curves, and quantify unknowns) and create a custom report of the results
- Perform routine maintenance and basic troubleshooting

GC-MS/MS

HPLC/UHPLC

LC-MS/MS

Particle Size

## Certification

To meet every learners' need, each course has two certification paths:

- 1) **Completion** – for those who require evidence the learning outcomes have been achieved.
- 2) **Attendance** – for those who don't want assessment.

To gain a certificate of completion, a passing grade of  $\geq 70\%$  of the total points available from assessments is required and, for in-person training,  $\geq 90\%$  attendance is required.

Software

Testing Machines

Thermal

## Registration

To register for this and all other Shimadzu Scientific Instruments training courses see directions on the next page. If you have any questions about registration, please email [training@shimadzu.com](mailto:training@shimadzu.com).

TOC/TN/TP

For managers or administrators, or those otherwise tasked with signing up a learner other than themselves, be sure to create an account with the learner's information.

UV-VIS-NIR

## Create an Account

1. Visit <https://shimadzu.geniussis.com/PublicStudentSignUp.aspx>.
2. Fill in all fields on the page. Food Allergies is a required field to best serve our in-person learners. This information is not shared with anyone.
3. Click Register. You will be taken to your dashboard.

## Register for a Course

1. Click "Register for Course" in the left-navigation menu.
2. Click "Register" on the course or courses of your choice. This will place your course(s) in the cart.
3. Click the cart icon and then "Proceed to Checkout" in the popup or click "Proceed to Checkout" on the page.
4. Expand the "Payment Methods" form and select your payment method from the two options: Credit Card and P.O./Quote Number. If you select P.O./Quote Number, fill-in a P.O or Quote Number.
5. Click Submit.
6. You are now enrolled in the course(s). You may receive a follow-up phone call from a Customer Service Representative to finish collecting Credit Card payment or to verify your P.O./Quote Number.

The screenshot displays the Shimadzu Learner interface. On the left, a navigation menu includes 'Shimadzu Learner', 'Log back in', 'Logout', 'Learner', 'Dashboard', 'Register for Course' (highlighted with a red box and a circled '1'), 'Withdraw from Course', 'Print Transcript', and 'Edit Account'. The main header features the Shimadzu logo, 'Excellence in Science', a search bar, a 'Find Course' button, and a 'Proceed to Checkout' button (highlighted with a red box and a circled '3'). Below the header are filters for 'All categories', 'All Dates', 'All Delivery Methods', and 'All locations'. The main content area shows three course cards, each with an image of a GC-2030 instrument. The first two cards are for 'eGC-102: Introduction to GC Instrumentation - Nexis GC-2030' (one online starting Apr 1, 2021, and one online starting Oct 1, 2021, both with 10 seats available and a 'Register' button highlighted with a red box and a circled '2'). The third card is for 'GC-101: Introduction to GC Instrumentation' (face-to-face starting Dec 1, 2021, with 10 seats available and an 'Info' button).

## About Shimadzu Scientific Instruments' Training

Shimadzu Scientific Instruments' training has helped thousands of scientists advance their careers through a wide variety of instrument and application training courses. Guided by learning science, these courses are designed by our team of subject-matter experts and learning professionals to provide a tailored blend of information and practice. For our in-person courses, instruction is provided by highly trained specialists who are experts in their respective fields.

