

#### **Custom Solutions Group LLC**

1419 Avenue A, Katy, TX 77493

Office: 281.574.9999

E-Mail: sales@csg-labs.com



### **Experts in GC Training**

For high quality jobs in the United States, U.S. employers need a highly skilled, technical workforce. Skilled workers are more productive, independent, flexible, and proactive. To this end, Custom Solutions Group LLC has established training courses in gas chromatography at our facility in Katy, Texas, just seven miles west of Houston's Energy Corridor.

Custom Solutions Group LLC offers practical training in gas chromatography, for both novice and experienced gas chromatographers. Because we are highly proficient in a number of hardware platforms, we are able to tailor each training course to the specific needs of individual chromatographers. Because we are experts in a variety of ASTM, GPA, and other industry-standard methods, we can assist individual chromatographers in meeting the diverse needs of employers in the petroleum, petrochemical, natural gas, high purity gas, specialty gas, specialty chemical, semiconductor gas, catalysis, biofuel and research industries.



### **Basic GC Course Topics**

- Theory and Principles of Gas
   Chromatography
- Hardware Function and Principles
- Carrier Gas and Supply Gas Controls
- Types of Injectors and Inlets
- Columns, Classifications and Principles
- Detector Types, Uses, and Functions
- Instrument Calibration
- Sampling Issues



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With the move of U.S. GC manufacturing overseas, Custom Solutions Group was formed in April 2004, to provide U.S. - based gas chromatographers with the highest quality, customized solutions in gas chromatography. In conjunction with our business partners, Custom Solutions Group designs, builds and commissions new and used gas chromatographs, customized to meet the needs and the specific analytical challenges of scientists, chemists, engineers and technicians in a variety of industries, including: petroleum, petrochemical, natural gas, high purity gas, spe-

cialty gas, specialty chemical, semiconductor gas, catalysis, biofuel and research industries.

Our team combines decades of experience in customized gas chromatography. We are Made-in-the-U.S.A. on the U.S. Gulf Coast. Our operations heavily emphasize continuous quality improvement and just-in-time manufacturing, enabling us to provide fast, flexible solutions at the highest value, in the least amount of time, thus saving time and money for inexperienced, understaffed, and/or overburdened laboratories.

- √ Courses consist of lecture and some hands on familiarization.
- ✓ Lunch, Snacks and Beverages are provided.

# Class Schedule - Spring 2025

February 4-5th Tuesday & Wednesday
February 6-7th Thursday & Friday
April 1-2nd Tuesday & Wednesday
April 3-4th Thursday & Friday



#### **Enrollment**

Email: sales@csg-labs.com Call: Kerry Kreiling (281) 507-9569



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### Petroleum & Petrochemicals

Natural Gas and Natural Gas Liquids (including early regroup and extended analysis)

Refinery Gas and Refinery Gas Liquids (including rapid refinery gas analysis) Simulated Distillations

Detailed Hydrocarbon Analysis

High Purity Ethylene and Propylene

Trace CO and CO2

Acid and Sulfur Gases

Trace Sulfur Speciation

Sulfur Simulated Distillations

## **Special Products**

Automated Stream Selection
Heated Cylinder Gas Autosamplers
Liquefied Petroleum Gas Autosamplers
Specialty Gas Autosamplers
Low Pressure and Vacuum Sampling Panels
Class 1 Division 2 and Class 1 Division 1
Enclosures

### Research and Biofuels

Catalyst Research
Membrane Research
Greenhouse Gas Analysis
Ethanol Analysis
Biodiesel Analysis

## Specialty Gas

Permanent Gases

Rapid Synthetic Gas Analysis

**Medical Gases** 

Trace Impurities in High Purity Gas

Reference Gases

Reference Gas-Liquids Standards

Hydrogen Generation and Fuel Cell Analysis

Beverage Grade CO2 Analysis

Chlorine Gas Analysis

Halocarbon Gases and Liquids

**Hydride Gases** 

**Acid Gases** 

# **Electronics Gas Analysis**

Trace Impurities in Hydride Gases
Trace Impurities in Fluoride Gases
Trace Impurities in Chloride Gases
Trace Impurities in High Purity Halocarbon Gases

