



# GPC Training Course

March 31<sup>st</sup> – April 1<sup>st</sup> 2020

This training course provides lectures on the theory and practice of modern GPC/SEC together with practical “hands on” sessions. In addition, an overview on current developments in the areas of multi-detection (light scattering, viscometry and other techniques); hyphenation techniques (GPC-NMR and GPC-MS) as well as 2D chromatography will be presented.

## Topics Covered

<u>Day 1</u>	<u>Day 2</u>
<ul style="list-style-type: none"><li>Theoretical background polymer synthesis</li><li>Theoretical background on GPC/SEC – HPLC</li><li>GPC/SEC separation mechanism</li><li>Sample preparation</li><li>Retention, plate count, resolution, efficiency</li><li>Molar mass distribution; averages, moments, meaning</li><li>GPC/SEC instruments and systems</li><li>Column selection and method optimization</li><li>Increasing accuracy and reproducibility</li><li>Influence of analytical conditions</li><li>Data acquisition</li><li>Data interpretation</li></ul>	<ul style="list-style-type: none"><li>GPC calibration methods (1)<ul style="list-style-type: none"><li>Calibration with narrow MW standards</li><li>Universal Calibration</li><li>Broad Calibration</li><li>Integral calibration</li></ul></li><li>GPC calibration methods (2)<ul style="list-style-type: none"><li>Copolymer calibration options</li><li>MW determination with viscometer and/or light scattering</li></ul></li><li>Chromatographic coupling for complex polymer analysis<ul style="list-style-type: none"><li>Copolymer analysis with dual detection</li><li>Identification with GPC-FTIR/UV/MS/NMR</li><li>2-D GPC; hyphenation of HPLC with GPC</li></ul></li></ul>
<b>Practical Session</b>	

## Information

### Dates\*\*

Tuesday March 31<sup>st</sup> & Wednesday, April 1<sup>st</sup> 2020

### Location

PSS USA, 160 Old Farm Road, Amherst, MA

### Seminar Fee

\$1,995

### Background and practice session

Two days of instruction on a variety of technical and theoretical topics, GPC software demonstration as well as Q&A

### Hands on section

Each participant will have access to a laptop with GPC software for data analysis and interpretation exercises. Attendees are encouraged to bring specific questions regarding their application  
Course slides will be available on a USB stick  
Course fee includes coffee breaks and lunch

### Registration

If you would like to register for the seminar or if you have questions, please contact our office at (413) 835-0265 or [pssusa@pss-polymer.com](mailto:pssusa@pss-polymer.com)

\*\* The course will be held with a minimum of 3 attendees. Please register by 2/29/2020