

# Course Catalog

**VEGA Americas understands that training is an essential part of developing a productive workforce that has the skills and knowledge needed for the field. VEGA offers a variety of training solutions that combine hands-on experience and in-depth instruction to meet your company’s training and development needs. We also offer professional development hours (PDH) to meet the continuing education needs of licensed engineers\*.**

VEGA’s instructor-led trainings combine a mix of lecture, discussion, live demonstrations, and hands-on experiences and include:

### **In-person Training at a VEGA site**

VEGA has three campus locations across the country, conveniently located in Cincinnati, Ohio; Pasadena, Texas; and Newport Beach, California. All attendees of training at a VEGA site receive a variety of VEGA merchandise and catered lunch. Other benefits such as breakfast, dinner, and evening activities may also be included depending on location and training class duration. Visitors to our Cincinnati location will be provided with a tour of our first-class manufacturing facility.

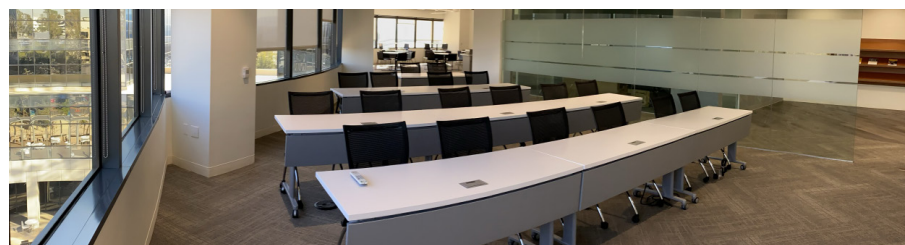
Dates of trainings held at a VEGA site can be viewed on our website at [www.vega.com/trainingus](http://www.vega.com/trainingus).



Cincinnati, Ohio



Pasadena, Texas



Newport Beach, California

### **In-person Training at a Customer Site**

VEGA understands that some customers may not have the ability to take time off to travel for their training, so we offer a variety of training classes at our customers’ sites as well as at other off-site locations\*\*.

*For a training quote please email your request to our training department at: [ustraining@vega.com](mailto:ustraining@vega.com) or call 513-272-4088.*

### **Virtual Training**

Using a reliable video-conferencing software, VEGA delivers virtual training with the same commitment to quality as our in-person training. Virtual training varies by class but all virtual classes include a mixture of lecture, discussion, and live demonstration.

*\*PDH available for most states. Please refer to individual continuing education requirements.*

*\*\*The travel expenses for our instructor will be added to the price of the training for trainings held at a customer’s site.*

# Basic Startup and Commissioning

This 8-hour training class introduces PACTware and VEGA's Device Type Managers (DTMs).

## Who should attend?:

Any person working with VEGA instrumentation that would like to learn more about the setup and maintenance of VEGA instruments using VEGA DTMs within PACTware.

## Objectives:

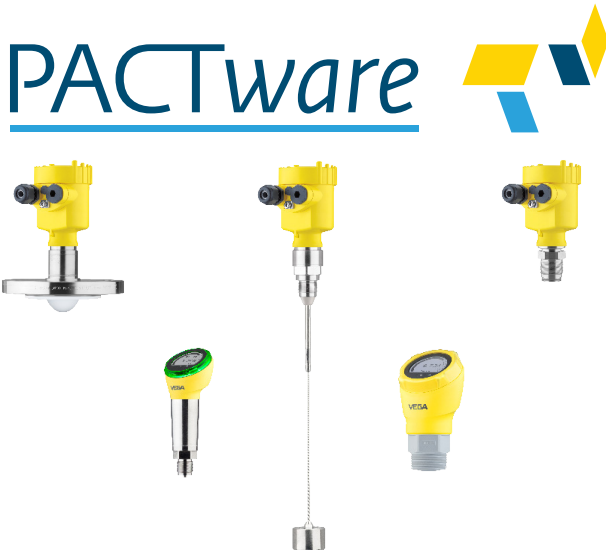
At the end of this course, attendees are able to configure a 4 ... 20 mA VEGA radar sensor, setup 0% and 100% points, configure a PLICSCOM display, setup the failure mode, optimize the sensor for specific applications, and suppress false signals.

## Theory:

Instructor-led modules with a variety of content including lecture, live demonstrations, and application of information through class discussions

## Topics:

- Installation
- Setup
- Configuration
- Service Options
- Data Collection Options
- False Signal Suppression



Max. participants	PDH
10 (12 for virtual)	6

## In-Person at a VEGA site

In-depth instruction and basic hands-on exercises instruct on the use of PACTware and DTMs to setup, troubleshoot, and calibrate VEGA instruments.

Location	Cost
VEGA site	\$375 per person

## Practical Methodology:

Supervised hands-on experience with setup, configuration, and calibration of VEGA radar sensors.

## Prerequisites:

- Basic knowledge of instrumentation
- Basic computer skills

## Virtual Option

In-depth instruction and live demonstrations instruct on the use of PACTware and DTMs to setup, troubleshoot, and calibrate VEGA instruments.

Location	Cost
Zoom session allows for this training to be attended from most locations	\$320 per person

## Prerequisites:

- Basic knowledge of instrumentation
- Basic computer skills
- Access to a computer with a webcam and internet access for the duration of the training
- Ability to download Zoom

View all class dates and register: [www.vega.com/trainingus](http://www.vega.com/trainingus)

Pricing is valid until October 2024.

Pricing for training at your site, e-mail your request at [ustraining@vega.com](mailto:ustraining@vega.com) or call 513-272-4088

# Advanced Startup and Commissioning

This 16-hour training class is held in our state-of-the-art instrumentation lab and instructs on the use of PACTware and VEGA Device Type Managers (DTMs) to setup, troubleshoot, and calibrate VEGA instruments. This course is primarily hands-on and provides advanced exercises that simulate real-world examples.

## Who should attend?:

Any person working with VEGA instrumentation and all plant subject matter experts that would like to learn more about the setup and maintenance of VEGA instruments using VEGA DTMs within PACTware.

## Objectives:

At the end of this course, attendees are able to configure a 4 ... 20 mA VEGA radar sensor, setup 0% and 100% points, configure a PLICSCOM display, setup the failure mode, optimize the sensor for both basic and challenging applications, and suppress false signals.

## Methodology:

**Theory:** Instructor-led modules with a variety of content including lecture, live demonstrations, and application of information discussed through class activities and discussions

**Practical:** Supervised hands-on experience with setup, configuration, and calibration of VEGA sensors in our state-of-the-art training lab.

## Topics:

- Installation
- Wiring Options and Limitations
- Setup
- Configuration
- Troubleshooting
- Service Options
- Data Collection Options
- Failure Mode
- False Signal Suppression
- Special parameter adjustments

## Prerequisites:

- Basic knowledge of instrumentation
- Basic computer skills
- Basic Startup and Commissioning

Max. participants	PDH
12	13

## In-Person at a VEGA site

Location	Cost
VEGA site	\$1,575 per person

## Practical Methodology:

Supervised hands-on experience with setup, configuration, and calibration of VEGA radar sensors.

## Prerequisites:

- Basic knowledge of instrumentation
- Basic computer skills



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# Radiation Safety Officer (RSO) Training

This 40-hour training class is designed for those who intend to become Radiation Safety Officers and any who desire the highest level of training the industry has to offer. Based on NUREG 1556, this course meets all of the requirements of the NRC and Agreement States for RSO training. Upon successful completion of the course, attendees receive a certificate to use for application to the appropriate licensing agency.

## Who should attend?:

Any person who plans to become a Radiation Safety Officer

## Objectives:

At the end of this course, attendees are knowledgeable of all radiation safety aspects as defined in NUREG 1556, Volume 4, Appendix D

## Methodology:

**Theory:** Instructor-led modules with a variety of content including videos, live demonstrations, and application of information discussed through class activities

**Practical:** Supervised hands-on experience of routine maintenance procedures, practical application of real-life emergency procedures

## Topics:

- Basic Radiation Theory
- Measurement and Monitoring Techniques
- Biological Effects of Radiation
- Radiation Safety and Protection
- Licensing Rules and Regulations
- Tests Performed on Devices
- Emergency Procedures
- Source Decommissioning
- Security
- Department of Transportation Regulations

Max. participants	PDH
20	34

## In-Person at a VEGA site

A written examination is given at the end of the class as well as a Certificate of Completion for each attendee.

Location	Cost
VEGA site	\$2,500 per person

## Prerequisites:

- Ability to use a scientific calculator

## Virtual Option

An online examination is given at the end of the class as well as a Certificate of Completion for each attendee.

Location	Cost
Zoom session allows for this training to be attended from most locations	\$2,250 per person

## Prerequisites:

- Access to a radiation survey meter
- Ability to use a scientific calculator
- Basic computer skills
- Access to a computer with a webcam and internet access for the duration of the training
- Ability to download Zoom

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# Radiation Safety Officer (RSO) Review Training

This 16-hour training class is designed for those who have previously taken a 40-hour Radiation Safety Officer course. Based on NUREG 1556, this course meets all of the requirements of the NRC and Agreement States for RSO training. A review class is recommended every two to three years.

## Who should attend?:

Any person who has previously completed a Radiation Safety Officer course and wants to stay current on radiation protection standards.

## Objectives:

At the end of this course, attendees are knowledgeable of all radiation safety aspects as defined in NUREG 1556, Volume 4, Appendix D

## Methodology:

**Theory:** Instructor-led modules with a variety of content including videos, live demonstrations, and application of information discussed through class activities

**Practical:** Supervised hands-on experience of routine maintenance procedures, practical application of real-life emergency procedures

## Topics:

- Basic Radiation Theory
- Measurement and Monitoring Techniques
- Biological Effects of Radiation
- Radiation Safety and Protection
- Licensing Rules and Regulations
- Tests Performed on Devices
- Emergency Procedures
- Source Decommissioning
- Security
- Department of Transportation Regulations

Max. participants	PDH
20	13

## In-Person at a VEGA site

A written examination is given at the end of the class as well as a Certificate of Completion for each attendee.

Location	Cost
VEGA site	\$1,000 per person

## Prerequisites:

- Ability to use a scientific calculator
- Previously completed a full Radiation Safety Officer training

## Virtual Option

An online examination is given at the end of the class as well as a Certificate of Completion for each attendee.

Location	Cost
Zoom session allows for this training to be attended from most locations	\$900 per person

## Prerequisites:

- Access to a radiation survey meter
- Ability to use a scientific calculator
- Basic computer skills
- Access to a computer with a webcam and internet access for the duration of the training
- Ability to download Zoom

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# Principles of Level and Pressure Measurement Training

This 16-hour training class introduces technologies used in process instrumentation for level and pressure measurements. In-depth instruction and hands-on exercises instruct on the principles of operation, applications, benefits, and limitations to the following technologies: ultrasonic, non-contact radar, guided wave radar, vibration and capacitance switching, pressure, and radiometric.

## Who should attend?:

Technicians and engineers that want to increase their understanding of technologies used for process measurement instrumentation.

## Objectives:

At the end of this course, attendees are able to identify 1 – 2 applications where each technology excels or is often utilized, list benefits and challenges for each technology, explain the measurement principles of common technologies used for level and pressure measurements, and understand function and use of PACTware with VEGA DTMs.

## Methodology:

**Theory:** Instructor-led modules with a variety of content including lecture, live demonstrations, and application of information through class activities and discussions.

**Practical:** Hands-on experience with setup and configuration of various technologies using VEGA sensors.

## Topics:

- Measurement principles
- Applications
- Benefits
- Limitations
- Installation
- Security
- Mounting
- Setup
- Configuration
- Radiation safety overview

Max. participants	PDH
12	13

## In-Person at a VEGA site

A written examination is given at the end of the class as well as a Certificate of Completion for each attendee.

Location	Cost
VEGA site	\$1,000 per person

## Prerequisites:

- Basic Computer Skills

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# Radiation Safety for Gauge Users Training

This 8-hour training class is designed to give operation and maintenance personnel the knowledge they need to work safely with and around radiometric gauges. Based on NUREG 1556, this course meets all of the requirements of the NRC and Agreement States for Authorized Users training.

## Who should attend?:

Any person working with and around radiometric gauges.

## Objectives:

At the end of this course, attendees are knowledgeable of all radiation safety aspects as defined in NUREG 1556, Volume 4, Appendix D

## Practical Methodology:

Supervised hands-on experience of routine maintenance procedures

## Topics:

- Basic Radiation Theory
- Health Risks
- The Use of Radiation Detection Instruments
- Standard Procedures
- Emergency Guidelines



Max. participants	PDH
10	6

## In-Person at a VEGA site

A written examination is given at the end of the class as well as a Certificate of Completion for each attendee.

Location	Cost
VEGA site	\$320 per person

## Theory:

Instructor-led modules with a variety of content including videos, detailed review of radiation license, and application of information discussed through class activities

## Prerequisites:

- Basic knowledge of instrumentation

## Virtual Option

An online examination is given at the end of the class as well as a Certificate of Completion for each attendee.

Location	Cost
Zoom session allows for this training to be attended from most locations	\$275 per person

## Theory:

Instructor-led modules with a variety of content including videos, lecture, and application of information through class activities and discussion

## Prerequisites:

- Basic knowledge of instrumentation
- Access to a computer with a webcam and internet access for the duration of the training
- Ability to download Zoom

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# Radiometric Measurement for Level and/or Density

This training class introduces radiometric measurements for level and/or density applications. In-depth instruction and hands-on exercises instruct on the setup, calibration, and linearization of VEGA radiometric instruments.

## Who should attend?:

Any person working with the setup or maintenance of radiometric measurement devices in level and/or density applications.

## Objectives:

At the end of this course, attendees are able to describe how a radiometric measurement is made, configure a VEGA radiometric sensor, and identify common troubleshooting procedures.

## Methodology:

**Theory:** Instructor-led modules with a variety of content including lecture, live demonstrations, and application of information discussed

**Practical:** Hands-on experience with routine maintenance procedures and calibration of radiometric sensors

## Topics:

- Principles of Operation
- ALARA principle
- Setup
- Calibration
- Maintenance and Diagnostic Functions

## Prerequisites:

- Basic knowledge of instrumentation
- Basic computer skills

Max. participants	PDH
10	6

### 8 hours: Level and/or Density In-Person at a VEGA site

Customers select the training to focus on either radiometric level applications or density applications depending on their needs.

Location	Cost
VEGA site	\$750 per person

Max. participants	PDH
12	13

### 16 hours: Level and Density In-Person at a VEGA site

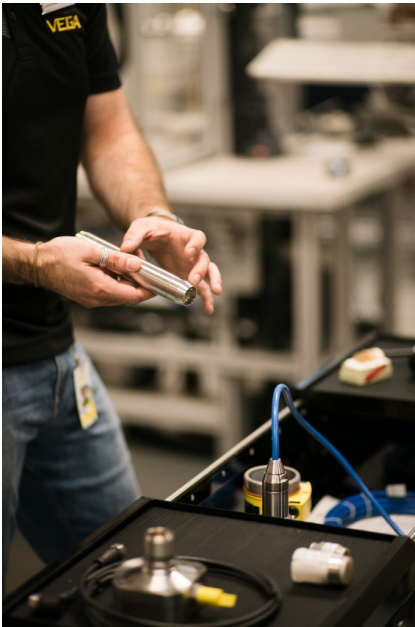
Customers receive training on both radiometric level and density applications in this comprehensive option.

Location	Cost
VEGA site	\$1,275 per person



View all class dates and register: [www.vega.com/trainingus](http://www.vega.com/trainingus)





## Need something else? Customize your training with VEGA

Please email your training request to our training department at:

[ustraining@vega.com](mailto:ustraining@vega.com) or call at 513-272-4088.

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