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.



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: <u>ustraining@vega.com</u> 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.



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Basic Startup and Commissioning - Non-contact Radar & Guided Wave Radar

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

Who should attend?:

Any person working with VEGA radar instrumentation that would like to learn more about the setup and maintenance of VEGA radars 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

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

Location	Cost
VEGA site	\$420 per person
Customer Site	Call or email for a Quote*

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	\$420 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

Basic Startup and Commissioning - Non-contact Radar, Pressure, & Controllers

This 8-hour training class introduces commissioning VEGA basic series non-contact radar sensors, pressure sensors, and controllers within the VEGA Tools app and PACTware with VEGA DTMs.

Who should attend?:

Any person working with VEGA radar and pressure instrumentation with or without a controller that would like to learn more about the setup and maintenance of those VEGA devices using the VEGA Tools App.

Objectives:

At the end of this course, attendees are able to configure a 4 ... 20 mA VEGA radar sensor, setup 0% and 100% points, setup a pressure sensor for level, configure a PLICSCOM display, optimize the sensor for specific applications, utilization of a controller for relay and pump control, 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



View all class dates and register: www.vega.com/trainingus

Max. participants	PDH
10 (12 for virtual)	6

In-Person

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

Location	Cost
VEGA site	\$420 per person
Customer Site	Call or email for a Quote*

Practical Methodology:

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

Prerequisites:

- Basic knowledge of instrumentation
- Basic computer skills

Advanced Startup and Commissioning - Non-contact Radar & Guided Wave Radar

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 on the second day.

Who should attend?:

Any person working with VEGA radar instrumentation and all plant subject matter experts that would like to learn more about the setup and maintenance of VEGA radar 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
- Setup
- Configuration
- Troubleshooting
- Service Options
- Data Collection Options
- Failure Mode
- False Signal Suppression
- Special parameter adjustments for interface measurement

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	\$1,750 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



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	\$1,150 per person
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Prerequisites:

Basic Computer Skills

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	\$845 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	\$1,720 per person



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



View all class dates and register: www.vega.com/trainingus

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
Customer Site	\$420 per person
	Call or email for a Quote*

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	\$420 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

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	\$1,150 per person
Customer Site	Call or email for a Quote*

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	\$995 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

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	\$2,740 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	\$2,450 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



Need something else? Customize your training with VEGA

Please email your training request to our training department at:

ustraining@vega.com or call at 513-272-4088.

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