



## FUNCTIONAL SAFETY TRAINING

**Internationally recognized** professional certifications based on the most **widely used machine safety standards** available online!

[AVAILABILITY & PRICING](#)

### WHAT COURSES ARE OFFERED?

**Introduction to Functional Safety** is a preparatory course for the CESE examination course, and explores the basics of functional safety for machinery. Taken together with the CESE certificate course, engineers will gain a deep understanding of functional safety design and regulatory compliance.

**Certified Electrical Safety Engineer (CESE)** is an **internationally recognized professional certification** offered in partnership with **SGS-TÜV Saar**, the worldwide leading company for safety testing, auditing, verification, and certification. By passing the certification exam, you join a worldwide community of experts, and prove your mastery over the latest laws and standards for machine functional safety.

### WHAT WILL I LEARN?

The courses cover the most widely used **ISO 13849-1 and -2** standards for functional safety, and **ISO 12100 for risk assessments**. As well as the realization of safety performance levels (PL), and verification & validation of safety systems.

You will learn **functional safety design of machines** that comply with the latest international laws and regulations and become more confident in the **service and maintenance of sensors, logic and electronics** related to the functional safety of machines.

### WHO IS IT FOR?

The course is intended for design engineers, application engineers, system integrators, and other machine safety experts. A **minimum 2 years experience** in design, construction or service of functional safety systems is required.



	Intro to Safety	CESE
Contents	<ul style="list-style-type: none"> <li>• Overview of European Regulations</li> <li>• Overview of OSHA requirements</li> <li>• Risk Assessment methodologies based on ANSI B11.0 and ISO 12100</li> <li>• Safety solutions design according to ISO 13849-1</li> <li>• Verification and Validation plan</li> <li>• Lock Out/ Tag Out According to OSHA 1910.147</li> <li>• IEC 60204 &amp; NFPA79 Machinery Electrical Safety requirements</li> <li>• Safety components as per standards</li> <li>• Basic and advanced Safety Functions</li> </ul> <b>+ 1 practice task</b>	<p>Deep dive on the subjects presented in the intro course:</p> <ul style="list-style-type: none"> <li>• Directives, laws and standards</li> <li>• Risk assessments to EN ISO 12100</li> <li>• Functional safety to EN ISO 13849-1 and -2</li> <li>• Safety Functions</li> <li>• Safety PL</li> <li>• Verification &amp; validation</li> </ul> <b>+ 2 practice task and certification exam</b>
Duration	In person 2-day training or Virtual 3-day training, approx. 4 hours per day	In person 3.5-day training or Virtual 5-day training, approx. 4-5 hours per day
Requirements	Minimum two years of experience.	
Participants	Maximum 16 persons per course *Discounts available for groups of 10 or more	
Note	We recommend a wait period of 1 to 2 months in between the courses, but no longer than 2 months.	

\*Details subject to change.

## UPCOMING CLASSES

Virtual and in-person courses are available.  
Contact us for pricing and availability

<https://wie.li/training>

## REGISTRATION

Please download and complete the **Registration & Certificate Order Form** and the **Course Payment Form**. The Registration Form will allow us to determine if you meet the requirements for the course, as well as request your certificate from TÜV. The Course Payment Form is for payment processing. Please submit completed forms to your **Regional Sales Manager** or [marketingcanada@wieland-electric.com](mailto:marketingcanada@wieland-electric.com). The course instructor will evaluate your credentials and confirm your participation. *Payment will only be processed once your participation is confirmed.*