

# EN473 Certification Course Registration



Please send registration with your payment to:

Eclipse Scientific  
60 Baffin Place, Unit 4  
Waterloo, Ontario  
Canada N2V 1Z7  
Fax: 1-519-886-1102  
Email: [training@eclipsescientific.com](mailto:training@eclipsescientific.com)

Information collected on this form is the sole property of Eclipse Scientific and TWI Ltd.

## Examination Information

Certification Requirement:

- Initial Certification     Recertification

Send Exam Results To:

- Student Address     Company Address

*Two passport photos and a current eye exam certificate are required for certification and should be submitted to the facilitator prior to the completion of the training course.*

*Course fees listed on this registration assume both course and examination are required and will be taken together. If you are interested in Course only or Exam only please contact Eclipse Scientific for additional information and pricing.*

## Course Information

Please visit our website for a list of scheduled courses and dates.

- Manual & Encoded PA Inspection of Welds (15 Days)  
 Time of Flight Diffraction (10 Days)  
 Certification Course for AUT Technicians (10 Days)  
 AUT Data Interpretation (5 Days)

Course Start Date:

## Personal Information

TWI Candidate ID Number:

Student Name:

Address:

Phone Number:

Email Address:

## Company Information

Company Name:

Company Address:

Send Invoice To:

- Student Address     Company Address

Please tick if you are:

- A member of The Welding & Joining Society  
 An employee of an Industrial Member of TWI  
 Past Eclipse Scientific Student

*Course fees will be returned less a cancellation charge of 25% for cancellations 14 (or more) days prior to start date. Cancellations less than 14 days are non-refundable. Eclipse reserves the right to cancel the event in case of insufficient*

**Head Office & Training Center**  
60 Baffin Place, Unit 4  
Waterloo, Ontario, Canada, N2V 1Z7  
Phone (800) 490-1072 • Fax (519) 886-1102

**Western Operations**  
3-11 Bellerose Drive, Suite #353  
St. Albert, Alberta, Canada, T8N 5C9  
Phone (780) 449-4078 • Fax (530) 239-8408

**Accounting & Application Lab**  
255352 Concession 1, RR#1  
Williamsford, Ontario, Canada, N0H 2V0  
Phone (519) 794-0110 • Fax (519) 794-4437

**Software Engineering & Distribution Center**  
2045 20<sup>th</sup> Avenue East, Suites 20 & 21  
Owen Sound, Ontario, Canada, N4K 5N3  
Phone (519) 372-1831 • Fax (519) 372-2039

registration or illness of lecturers. Eclipse will ensure maximum possible notice is given to the attendees.

## Methods of Payment

Full payment (in CAD) must accompany this form. Registrations received without payment will be treated as provisional and will not guarantee a place. Please ensure that transfer fees are not deducted from this payment.

Cheque  Bank Draft  Wire Transfer

Please make cheques payable to Eclipse Scientific. For Bank Draft or Wire Transfer information please contact Eclipse.

Credit Card (Visa or MasterCard Only)

Credit Card:  Expiration Date:

Name on Card:

Signature (double click to sign electronically):

X

## Eclipse Scientific Welcomes You

Located in beautiful Waterloo, Ontario in the city's technical centre, home to Research in Motion, Perimeter Institute for Theoretical Physics and Institute of Quantum Computing, Eclipse Scientific offers a comfortable training setting with access to a diverse collection of NDT equipment including scanners and probes. Our training facilitators hold a multitude of certifications as well as many years of industry experience.

## Suggested Hotels

Our suggested hotels are located minutes from our training centre and offer a corporate rate to Eclipse clients. Shopping centres, restaurants and a movie theatre are all nearby.

Waterloo Inn  
475 King Street North, Waterloo  
519-884-0220  
www.waterlooinn.com

Destination Inn  
547 King Street North, Waterloo  
519-884-0100  
www.destinationinn.com

St. Jacobs Country Inn Best Western  
50 Benjamin Road, Waterloo  
519-884-9295  
www.bestwestern.com

## Travelling by Air

Eclipse is located less than an hour's drive from Toronto's Pearson Airport (YYZ) and minutes from the Region of Waterloo International Airport (YKF).

## We're Always Happy to Help

Do you need help arranging your accommodations or transportation? Our office is always happy to help.

## EN473 Course Details

### Manual & Encoded PA Inspection of Welds (15 Days - \$4380.00 CAD + \$219.00 GST)

- Explanation of the theoretical background of phased array applications
- Correctly select probe/wedge to examine welded butt joints
- Calibrate and set up the phased array equipment
- Locate and evaluate flaws in the weld body, HAZ, and parent metal lamination
- Analyze scan data for location and size of defects in typical welded butt joints
- Accurately report weld condition
- Differentiate defects from geometric features
- Compile written work instructions

Course candidates must be qualified to a minimum EN473 Level 2 Ultrasonic Testing.

### Time of Flight Diffraction

#### (10 Days - \$3870.00 CAD + \$193.50 GST)

- Understand the theoretical background and limitations of TOFD applications
- Correctly select probe/wedge to examine welded butt joints
- Calibrate and set up the TOFD equipment
- Locate and evaluate flaws in the weld body and HAZ
- Differentiate defects from geometric features



- Analyze scan data for location and size of defects in typical welded butt joints
- Understand and apply digital processing processes
- Compile written work instructions

*Course candidates must be qualified to a minimum EN473 Level 2 Ultrasonic Testing.*

**Certification Course for AUT Technicians  
(10 Days - \$4900.00 CAD + \$245.00 GST)**

In AUT of pipeline girth welds a series of probes or a phased array probe is mounted on a band strapped around the pipe adjacent to the weld and is driven around the pipe's circumference. As the probe(s) travel around the pipe, ultrasonic data is collected from the weld and the software enables flaw sizes and positions to be displayed. Very fast scanning speeds are called for as it is necessary to complete a weld inspection every 2-4 minutes. AUT is replacing radiography for pipeline girth weld inspections worldwide.

*Course candidates must be qualified to a minimum EN473 Level 2 Ultrasonic Testing.*

**AUT Data Interpretation**

**(5 Days - \$2520.00 CAD + \$126.00 GST)**

- Accurate reporting of weld condition from AUT data
- Differentiation of defects from geometric features
- Assessment of AUT records against a specification
- Assessment of calibration records

*Course candidates must be qualified to a minimum EN473 Level 2 Ultrasonic Testing.*

***GST is charged on all courses held in Canada. Courses presented after July 1, 2010 will be charged HST of 13%.***

## NDT Pre-Certification Experience

Please list your specific experience and duration, as required by the scheme documentation, and attach copies of log book entries if available for NDT examinations.

This is not a pre-requisite for examination, however certification will not be awarded until the experience is gained and evidence provided.

This experience must be verified by your employer or recent major client.

**List experience and duration here.**

To the best of my belief, the candidate's statement given above is correct at the time of signing.

Verifying Signature (employer or equivalent):

X

## Acceptance of Terms

I understand that TWI Ltd. and its associated trading companies (and companies, organizations or agents processing data on its behalf) will hold and use personal data supplied by me for administration purposes. These purposes have been notified under the Data Protection Act 1998. The data may also be used to send separate unsolicited mailings containing details of events, new services and products.

You have the right to ask TWI Ltd. not to send such mailings. If you do not wish to receive this information from TWI Ltd. please tick this box . You have the right of access to personal data that we hold about you on payment of the access fee not exceeding £10. Requests should be addressed to the Data Controller, TWI Ltd., Granta Park, Gt. Abington, Cambridge CB21 6AL, UK.

I agree to read the Health & Safety and Security information provided by TWI and to abide by the guidance given.



---

I understand that occasionally images of training and examinations are taken by TWI for publicity and other purposes and that permission for my inclusion in such material is implied unless I make it known to Customer Services at registration that I do not wish to feature.

I have read and understood the documentation issued by the scheme management that is relevant to the examination for which I am applying and declare that I satisfy those criteria covering vision training and experience. I accept responsibility for any examination fees in the event of non-payment by the sponsor. I agree to abide by the requirements for certification as relevant to the examination for which I am applying. In particular I agree to comply, if applicable, with the CSWIP rules on use and misuse of certificates and on profession conduct. I understand that any appeal against an exam result must be received within six months of the exam date.

I have read the listing and include all of the requested information.

I understand that any false statement may result in the examination being invalidated.

Student Signature (double click to sign electronically):

X

---

