



Graduate Training Programme in Software Engineering

**Achieve professional standards of excellence
from the start of your career**

**Centre
for SOFTWARE
Engineering**



Graduate Training Programme in Software Engineering

If you have recently graduated in computer science or software engineering and are working as a software engineer (irrespective of your precise job title), and have at least 6-months experience then this training programme is designed for you. It aims to raise the level of professionalism among young software developers early in their career and is designed to round off undergraduate skills already gained. The programme emphasises 'real-world' issues, and material not generally covered, or appropriate, within normal undergraduate courses, but which is essential for effective good practice in employment as a software developer.

This is an intensive 10-month programme of one-day workshops, running from September through to June.

Benefits to Attendee

Attendees will be well equipped to be productive and effective developers. In addition, the following benefits will also apply:

- Consistent attendees will be given a Certificate of Attendance by CSE
- The CSE is a registered training provider for the Institution of Engineers of Ireland's (IEI) Continuous Professional Development (CPD) scheme and thus this programme can be a substantial part of CPD training, and contribute towards Chartered Engineer status.
- This programme has been endorsed by the Irish Computer Society (ICS) as a valuable contribution to professional development.

Benefits to Employer

The employer gains from sending their new/recent graduates on this programme since:

- Employees will climb the learning curve faster, becoming fully productive at an earlier stage.
- They will be trained to be aware of good practices from the start of their career and to apply them where appropriate.
- The programme is based on the successful track record of CSE in running advanced practitioner training since 1991
- The costs involved are considerably less than sending someone on a set of individual specialist courses in an attempt to achieve the same effect.

Nature of workshops

Each workshop is of one day's duration. The emphasis is on ensuring that the attendees are exposed to good practice concepts, understand what the key issues are, and are given sufficient insight to be able to undertake further learning in the areas covered as required.

Outline of programme

1a	What is Software Engineering?	Why Software Engineering is not just computer science and what makes for good practice.
1b	Requirements Management	The importance of understanding, and documenting the user needs and the system features.
2	Project Management Introduction	The essence of project management. Project elements, including proposals and contracts. The importance of planning. Technical and people issues. Cost/time/quality trade-offs.
3	Project Planning & Tracking	Estimating, metrics and tracking progress.
4a	Configuration Management	Ensuring you know what is done, where it is and what the linkages are.
4b	Product Quality	Introduction to ISO9126 software quality characteristics and product evaluation.
5a	Processes & Life Cycles	The concept of a process in software development. Life cycles and the main stages necessary for a software development project.
5b	SPI Frameworks	Introduction to ISO9001, CMM and SPICE. Comparing and contrasting the frameworks.
6	Software Quality Assurance	Test management, inspections and auditing.
7	Object Technology	Introduction to the concepts of Object Technology.
8	UML	Practical issues of using the standard OO notation.
9	Rapid Development Approaches	Practical issues of using rapid approaches like DSDM and eXtreme Programming.
10a	Intellectual Property Rights	Introduction to IPR, types and features of IPR protection and practical approaches for its management.
10b	Product Line Management	Views of the software product from bespoke to package. Market strategy and product strategy.
11	Designing User-Centred Computer Systems	Defining usability, users and their tasks. Designing Usable Software and User Support Mechanisms.
12	Team Working & People Issues	Communication, team dynamics, personality differences, organisation style.
13	Security & Other Domain Issues	Security Management and other domain specific issues.
14	PSP, Professional Issues & Wrap Up	Personal Software Process, professional ethics and continuous professional development (CPD).

Programme details may be subject to change in the light of technology developments or participant feedback

Application Form

Name(s)

Organisation

Address

Telephone No.

Fax No.

E-Mail

Approval of Employer

Name

Position

Signature

Date

Telephone No.

Fax No.

E-Mail

Fee and Payment

The fee for this programme is € 3250 per attendee. It is also possible to pay in two instalments of €1700 per attendee (payable at the beginning of the programme and March of the following year). By signing the above approval form the employer is committed to payment of at least the first instalment (€ 1700). Substitutions can be made up to the start of the programme. If the need arises for substitutions to be made during the programme these will be dealt with on an individual basis.

CSE is approved by Enterprise Ireland as a training provider. Contact your local Enterprise Ireland representative to see if you are eligible for grant aid.

I wish to pay in **1** ☐ **2** ☐ instalments.

I enclose cheque/purchase order for:

Amount €

/ Purchase Order No.

Please complete this form and post or fax to:

Centre for Software Engineering Ltd., Dublin City University Campus, Dublin 9

Tel: (01) 700 5750 Fax: (01) 700 5605

Note: a soft copy of this form is available on the CSE website: <http://www.cse.dcu.ie>