

THE MOST SUCCESSFUL PEOPLE NEVER STOP LEARNING.

Institution of
**MECHANICAL
ENGINEERS**

**LEARNING AND DEVELOPMENT
PROGRAMME**
January 2015 - December 2015



CONTENTS

LEADING SELF

Communication and influencing skills	12
Customer service excellence	13
Applying ethical principles	14
Innovation and problem solving skills	15
Managing time	16
Presentation skills	17
Coaching fundamentals	18

LEADING THE TEAM

Mentoring for MPDS	22
Mentoring skills	23
Fundamentals of engineering management (CMI Level 3 qualification)	24-25
New engineering manager	26
Performance management and appraisal skills	27
Pathway to leadership excellence (CMI Level 5 qualification)	28-29
Senior engineering manager	30
Operational risk management	31
International management	32
Leadership practice	33

LEADING THE BUSINESS

APM introductory certificate	38
APMP project management qualification	39
Business skills for graduate engineers	40
Commercial skills	41
Business continuity and resilience	42
Consultative selling skills	44
Commercial risk awareness	45
Winning bids and tenders	46
Negotiation skills	47
Contract law and contract drafting	48
Financial management	49
Introduction to cost estimating	50
Managing smaller engineering projects	51
Research and development project management	52
Successful project management	53
Understanding intellectual property	54

RAILWAY

Introduction to rolling stock	60
Traction and braking	60
Fleet maintenance – Introduction	61
Fleet maintenance – Advanced	61
Vehicle dynamics and vehicle track interaction	63
Vehicle acceptance and approvals	63
Train control and safety systems	64
Train communication and auxiliary systems	64
Train structural integrity	65
Introduction to railway signalling technologies	66

PRODUCT LIFECYCLE

Lean overview	70
Lean practitioner	71
Design for Six Sigma	72
Six Sigma Yellow Belt	73
Engineering for service and support	74
Design for manufacturability	75
Commercialising innovation	75
New product introduction	76

ENGINEERING ESSENTIALS

Tolerance analysis	80
CDM regulations	81
Introduction to standards	81
Electrical principles	82
Electrical schematics	83
Fault finding principles for engineers	84
Introduction to systems engineering	85
21st Century TRIZ	87
Non-destructive testing introduction	88
Principles of commissioning	90
Principles of mechanical engineering	91
Technical report writing	92
Preparing engineering specifications	93
Geometric dimensioning and tolerancing	94

INTRODUCING LEARNING AND DEVELOPMENT

Welcome to our 2015 Learning and Development brochure, which outlines the training courses and services offered by the Institution of Mechanical Engineers to develop professional engineers.

We continually strive to improve our programmes, to make our courses and services more relevant and useful to the engineering community.

After receiving valuable feedback from our annual Learning and Development survey, a number of changes have been implemented for 2015.

What's new?

- New qualifications for Lean (p70) and Six Sigma (p72)
- More flexible routes to achieve Chartered Manager status and the Level 5 Diploma in Leadership & Management (p28-29)
- A new fundamentals of engineering management qualification which will enable delegates to achieve the CMI Level 3 Certificate in First Line Management (p24-25)
- A redesigned CMI Level 5 programme, pathway to leadership excellence, with new flexible attendance options and new modules including Leadership Practice (p28-29)
- A Commercial Skills programme included in our 'Bring a colleague for free' offer (p41)
- A new training location in Coventry
- New training programmes in Operational Risk (p31) and Geometric Dimensioning and Tolerancing (p94)

Training to support every step of your career

The Institution of Mechanical Engineers provides the most up-to-date, industry relevant training for engineers, offering a broad portfolio of technical, business and leadership courses to help professionals in technical organisations develop the skills they need to transform their careers.

Working with leading businesses and universities, we create and share engineering knowledge and provide government, business and the public with innovative, authoritative and impartial information.

This knowledge provides us with a greater understanding of the challenges facing engineers and businesses so that we can create training programmes applicable to engineers of all levels, which leads to improvements in performance in their workplace.

All of our courses can be tailored to your organisation and delivered in-house. We can create and deliver a range of programmes that will consider your business objectives, culture and the experience levels of delegates. In addition, we also offer performance diagnostic tools and coaching workshops for your business.

Our training programmes are specifically designed for the engineering community, to develop a wide range of vital skills that will improve your performance and your organisation as a whole.

SUPPORTING CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

Each of our courses contributes seven hours per training day to the ongoing CPD requirement of professional engineers who are registered with the Engineering Council.

ENHANCING TECHNICAL EXPERTISE

Our technical training for key industries such as rail and non-destructive testing has been designed to meet the specific needs of engineers working globally in these sectors.

LEARNING PASS DISCOUNTS

For organisations and individuals interested in multiple bookings, we offer a general Learning Pass and a specific Railway Learning Pass, enabling you to save up to 33% on training. This offer is available to members and non members of the Institution.

TRAINING AROUND THE UK AND WORLDWIDE

We run public courses at six locations around the UK, making it easier for individuals to access our training programmes. Our corporate training for businesses can be delivered in-house, meaning we can come to a location and venue of your choice, worldwide.

DEVELOPING BESPOKE SOLUTIONS

If the training you require is not listed here, we can develop a bespoke solution for your organisation. In addition to our technical training portfolio, we offer global management and leadership solutions.

Our learning and development expertise

1. Extensive experience working with engineers and technical professionals
2. Broad portfolio of technical and leadership programmes designed to help you enhance your personal performance and/or help you effectively lead your team and business forward
3. Tailor-made or off-the-shelf options
4. Open programmes or in-company training provision
5. Open courses available in London, Glasgow, Bristol, Aberdeen, Coventry and Manchester
6. Performance diagnostic tools to enhance training effectiveness
7. Bespoke programmes delivered worldwide, in multiple languages
8. Complete programme and logistical management

To discuss your learning and development requirements, please call us on +44 (0)20 7304 6907 or email training@imeche.org

LOCATIONS AT A GLANCE

COURSES NOW AVAILABLE IN SIX UK LOCATIONS

All of our training is available at our head office in Westminster, London. We are expanding our portfolio to locations nearer to you.



LOCATIONS AT A GLANCE

VIEW TRAINING PROGRAMMES NEAR YOU

	ABERDEEN	BRISTOL	COVENTRY	GLASGOW	MANCHESTER
LEADING SELF					
Communication and influencing	✓	✓			✓
Customer service excellence		✓			
Innovation and problem solving	✓				✓
Managing time	✓				✓
Presentation skills					✓
LEADING THE TEAM					
Mentoring for MPDS	✓	✓	✓	✓	✓
Mentoring skills	✓	✓	✓	✓	✓
Leadership practice					
Managing performance					
New engineering manager	✓	✓	✓	✓	✓
Senior engineering manager	✓	✓			✓
LEADING THE BUSINESS					
APM introductory certificate in project management	✓	✓			
APMP		✓			
Business skills for graduate engineers		✓			
Consultative selling skills		✓			
Contract law and contract drafting		✓			
Financial management					✓
Introduction to cost estimating		✓			
Managing smaller engineering projects					✓
Negotiation skills	✓	✓			
Research & development project management	✓	✓			✓
Successful project management		✓		✓	
ENGINEERING ESSENTIALS					
Electrical principles					✓
Electrical schematics					✓
NDT introduction		✓			
Preparing engineering specifications	✓	✓			✓
Principles of mechanical engineering					✓
Technical report writing	✓	✓	✓	✓	
PRODUCT LIFECYCLE					
Commercialising innovation		✓			
Design for manufacturability		✓			

If you cannot see the programme you would like, please contact us to see if we can create a tailored programme or run a dedicated session.

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

COURSES AT A GLANCE

LEADING SELF

Course name	Pg	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Communication and influencing skills	12	13-14	24-25 B	10-11 A		14-15 M	9-10			8-9 B	12-13 M	11-12	1-2 A
Customer service excellence	13	27-28			14-15 B			15-16				3-4 B	
Applying ethical principles in engineering	14					21						25	
Innovation and problem solving skills	15	19-20	11-12 M	23-24 A		13-14			24-25 M		8-9		7-8 A
Managing time	16			27 M		8 A	2				28 M	17 A	4
Presentation skills	17	25-26			21-22 M						15-16	4-5 M	
Coaching fundamentals	18		3						27				

LEADING THE TEAM

Course name	Pg	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mentoring for MPDS	22	27 B	3 G	3 17 M	28 C	19 A	3	21 B	18 25 C	29	20 M	3 A	2
Mentoring skills	23	28 B	4 G	4 18 M	29 C	20 A	3	22 B	19 26 G	30	21 M	4 A	3
New engineering manager	26	13-14	3-4 24-25 G	25-26	22-23 B	6-7 M	22-23	29-30 A	25-26 B	16-17 30-1 G	13-14 C	11-12 A	7-8 M
Performance management and appraisal skills	27				30		5 V			28 V		19	
Senior engineering manager	30		11-12	2-3 M	28-29 A		2-3 B	14-15		21-22 M	5-6 A	3-4 B	15-16
Operational risk management	31					6-7					14-15		16-17
International management	32							9-10					8-9
Leadership practice	33					18 V			7 V			2 V	

LEADING THE BUSINESS

Course name	Pg	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
APM introductory certificate in project management	38		3-4 B		14-15	19-20 A			25-26		13-14 B	3-4 A	15-16
APMP	39					11-15		6-10 B			5-9		7-11 B
Business skills for graduate engineers	40			16-17 B		13-14				28-29 B		16-17	
Commercial skills	41					18-19						19-20	
Business continuity and resilience	42				21-22						20-21		
Consultative selling skills	44		11-12			20-21 B				29-30		17-18 B	
Commercial risk awareness for engineers	45			12-13						28-29			
Winning bids and tenders	46						3-4					4-5	
Negotiation skills	47			18-19 B	22-23 A		9-10			21-22 B	13-14 A		9-10
Contract law and contract drafting	48			17-18			17-18 B		4-5				1-2 B
Financial management	49			4-5		11-12 M			3-4		5-6 M	5-6	
Introduction to cost estimating	50					13-14		7-8 B			7-8		9-10 B
Managing smaller engineering projects	51			11-12		27-28 M		8-9			27-28 M	11-12	
Research & development project management	52		18-19 B	25-26 M	15-16	13-14 A		22-23 B	4-5		13-14 M	17-18	2-3 A
Successful project management	53	22-23 B		10-11				22-23 G	5-6	29-30 G		11-12 G	9-10
Understanding intellectual property for engineers	54						18-19					19-20	

RAILWAY

Course name	Pg	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Introduction to rolling stock	60			24							6		
Traction and braking	60			25							7		
Fleet maintenance - Introduction	61				14						13		
Fleet maintenance - Advanced	61				15						14		
Vehicle dynamics and vehicle-track interaction	63					14					22		
Vehicle acceptance and approvals	63					13					21		
Train communication and auxiliary systems	64			26							8		
Train control and safety systems	64			12		13					20		
Train structural integrity	65				16						15		
Introduction to railway signalling technologies	66					18-22						23-27	

PRODUCT LIFECYCLE

Course name	Pg	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Lean overview	70		17								19		
Lean practitioner	71				7-9						27-29		
Design for Six Sigma	72		18								20		
Six Sigma Yellow Belt	73			4-6								2-4	
Engineering for service and support	74						22-23						3-4
Commercialising innovation	75		26-27		23-24 B						26-27		1-2 B
Design for manufacturability	75			24 B		27					1 B	17	
New product introduction	76					28-29						18-19	

ENGINEERING ESSENTIALS

Course name	Pg	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Tolerance analysis	80		10					14				10	
CDM regulations	81			3							6		
Introduction to standards	81			10							13		
Electrical principles	82			18 M			24			23 M		18	
Interpreting electrical schematics	83			19 M			25			24 M		19	
Fault finding techniques for engineers	84						17-18				7-8		
Introduction to systems engineering	85				29-30						29-30		
21st Century TRIZ	87						2					4	
NDT introduction	88			12 B			25			28 B		26	
Principles of commissioning	90			25				7					9
Principles of mechanical engineering	91			10-11		27-28 M			4-5				9-10 M
Technical report writing	92	21 M	3 26 B	18	21 C	7 A	24	9 M	6 B	15 G	15 C	10 A	9
Preparing engineering specifications	93	13-14 A	11-12 M	11-12		12-13 B	16-17	14-15 A		9-10 M		11-12	2-3 B
G, D & T	94						9-11						8-10

Key: Aberdeen **A** Bristol **B** Coventry **C** Glasgow **G** Manchester **M**
 If a location is not listed, the programme will be held in London.

LEADING SELF

Take control of your own development and workplace performance.

In the constant search to become a better, more technically competent engineer; it's easy to forget one of the things that make an engineer stand out: having the skills to deal with people effectively.

These skills are important throughout an engineer's career, particularly as you take on more responsibilities and develop professional relationships at more senior levels in both your own organisation and others, such as customers and suppliers.

Our leading self programmes focus on these skills, enabling engineers to develop by first understanding your current 'natural' style, then exploring and developing other ways of approaching these tasks when appropriate.

By being able to display professional development in leadership, an engineer will have taken the first step towards leading individuals, teams and a business effectively and successfully.



LEADING SELF

- 12 COMMUNICATION AND INFLUENCING SKILLS
- 13 CUSTOMER SERVICE EXCELLENCE
- 14 APPLYING ETHICAL PRINCIPLES
- 15 INNOVATION AND PROBLEM SOLVING SKILLS
- 16 MANAGING TIME
- 17 PRESENTATION SKILLS
- 18 COACHING FUNDAMENTALS

SECTION KEY:

-  London
-  Bristol
-  Glasgow
-  Aberdeen
-  Coventry
-  Manchester
-  Competences

2 DAY COURSE

COMMUNICATION AND
INFLUENCING SKILLSBRING A
COLLEAGUE
FOR FREE

Improve your ability to communicate and influence others.

Possessing a powerful and flexible communication style is a great addition to the engineer's toolkit. Through clear, concise and targeted communication, engineers will be able to improve the influence they have over colleagues and improve their career development prospects.

Attending this workshop will enable you to better understand your own and others' behaviour and adapt your style accordingly.

After attending the course, you will be able to communicate more clearly and effectively, in order to influence for more favourable results.

KEY OUTCOMES

- Better understand your own behaviour and how it is perceived by others
- Improve the way you interact with colleagues
- Increase your ability to influence those you work with
- Tailor your message for improved outcomes
- Use the DiSC personality profile methodology to improve the impact of your communications
- Employ a number of influencing strategies depending on your situation

RELATED COURSES

- Presentation skills (p17)
- Consultative selling skills (p44)

Locations & Dates 2015

LDN	13-14 January 2015
	9-10 June 2015
	11-12 November 2015
AB	10-11 March 2015
	1-2 December 2015
BRS	24-25 February 2015
	8-9 September 2015
MANC	14-15 May 2015
	12-13 October 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

UK
SPEC D and E

Optional module in the Fundamentals
of Engineering Management programme
page 24-25



2 DAY COURSE

CUSTOMER SERVICE
EXCELLENCEBRING A
COLLEAGUE
FOR FREE

Techniques to build rapport and exceed customer expectations.

Learning how to handle customers professionally is as vital as the products and services you provide. All engineers who operate in a client/customer facing role need both technical skills and a range of complementary skills related to client management.

This course is designed to support engineers so they can build customer relationships through effective communication, trust and rapport building. The programme gives engineers the opportunity to practise their interpersonal skills in a variety of client/customer situations.

KEY OUTCOMES

- Build better client relationships through improved communication, rapport, trust, and loyalty
- Use listening and questioning techniques effectively
- Manage customer expectations more effectively
- Positively manage conflict and challenging situations
- Handle difficult interactions, different customer attitudes, objections and challenging situations, whilst maintaining a focus on the customer
- Use problem solving techniques to create win-win scenarios
- Adopt techniques of active listening and questioning to troubleshoot customer problems

RELATED COURSES

- Consultative selling skills (p44)
- Negotiation skills (p47)

Locations & Dates 2015

LDN	27-28 January 2015
	15-16 July 2015
BRS	14-15 April 2015
	3-4 November 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

UK
SPEC D and E

If you cannot see the programme you would like, please contact us to see if we can create a tailored programme or run a dedicated session.

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

1 DAY COURSE**APPLYING ETHICAL PRINCIPLES**

Explore the ethical challenges that engineers face every day.

Engineers create products and processes that we interface with at almost every moment of our lives. However, most technology has double implications: whilst designed to make life better it can also be misused to disadvantage or may have negative unintended consequences.

This programme aims to explore the four fundamental principles that guide an engineer in achieving the high ideals of professional life: accuracy and rigour; honesty and integrity; respect for life, law and the public good; and responsible leadership. By increasing your ability to reason clearly and carefully, you will be more capable of making sound ethical decisions.

This one-day course has been designed to explore the ethical issues engineers face every day, perhaps without recognising them. The delivery style relies on extensive use of case studies and discussion of engineering scenarios, to be easily applicable and relevant to your workplace.

KEY OUTCOMES

- Identify ethical dilemmas within your daily working life
- Develop a framework for decision making that is in line with the values of your company or clients
- Appreciate the wider implications of your decisions and moral choices
- Understand the application of professional codes of conduct
- Know your responsibilities to your company, clients, customers, colleagues, society at large and the environment
- Make clear, informed and well-reasoned solutions to ethical dilemmas

Locations & Dates 2015

 21 May 2015
25 November 2015

Prices

Member
£499 + VAT
Non-member
£599 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

 B, C, D and E

Optional module in the Fundamentals of Engineering Management programme page 24-25



Easy ways to book:

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

2 DAY COURSE**INNOVATION AND PROBLEM SOLVING SKILLS**

Providing tools and techniques to enhance innovation and the professional engineer's skill set.

This course is designed to provide engineers (and those who work in an engineering environment), with the process, language and tools to raise their own effectiveness when innovating and problem solving.

The programme provides tactics for generating ideas and focusing on key issues, as well as examples of strategies for the use of each tactic.

KEY OUTCOMES

- Adapt your style to situations and audiences in order to get the required result
- Use creative problem solving in different aspects of your work
- Get the most from your team when generating or focusing
- Identify the best generating or focusing tool for the task at hand

RELATED COURSES

- 21st Century TRIZ (p87)

Locations & Dates 2015

 19-20 January 2015
13-14 May 2015
8-9 October 2015

 23-24 March 2015
7-8 December 2015

 11-12 February 2015
24-25 August 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

 B, C and D



THIS WAS A VERY CHALLENGING AND INTERESTING COURSE. I HAVE CONCRETE TECHNIQUES TO APPLY AT WORK.

1 DAY COURSE

MANAGING TIME

Prioritise your workload for improved effectiveness and reduced stress.

You cannot save time, store time or bank time. You can only spend it. Therefore it is important to make the right choices to ensure you spend your time effectively. This course will support you with optimising your effort to ensure your time and energy is concentrated on high payoff activities. The course will also help you understand the drivers of stress, its links with time management and how you can help yourself and others cope at periods of high stress.

KEY OUTCOMES

- Identify how you currently allocate time
- Take control of time in a more positive way
- Use a variety of reflection and prioritisation tools
- Develop strategies for reducing time stealers
- Appreciate the link between stress and time management
- Prevent and manage stress using a number of techniques

RELATED COURSES

- Communication and influencing skills (p12)
- Presentation skills (p17)

Locations & Dates 2015

 2 June 2015
4 December 2015

 8 May 2015
17 November 2015

 27 March 2015
28 October 2015

Prices

Member
£499 + VAT

Non-member
£599 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

 C and D

**BRING A
COLLEAGUE
FOR FREE**

2 DAY COURSE

PRESENTATION SKILLS

Make an impact by delivering messages clearly and powerfully.

Public speaking, engaging audiences and speaking with confidence may not be activities that we frequently face. Yet business reality demands us to be active in meetings, client pitches and team briefings which all require us to be able to speak confidently, assertively and ensure that our messages are understood.

This interactive workshop is designed to provide an understanding of the principles of presenting to and engaging an audience. We cover the platform techniques required to engage an audience and deliver a powerful message using both visual and non-visual aids. Throughout the workshop, you will present and practise new skills and you will leave with a video recording of your presentation with feedback from the tutor and group.

KEY OUTCOMES

- Understand the purpose and value of powerful presentations
- Analyse audience needs and create presentations accordingly
- Set objectives and plan an appropriate structure
- Use your improved platform skills to answer audience questions with confidence
- Create an action plan to fine tune your presentation skills following feedback from the facilitator

RELATED COURSES

- Communication and influencing skills (p12)
- Managing time (p16)
- Negotiation skills (p47)

Locations & Dates 2015

 25-26 February 2015
15-16 October 2015

 21-22 April 2015
4-5 November 2015

Prices

Member
£995 + VAT

Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

 D and E

**BRING A
COLLEAGUE
FOR FREE**



KUDOS FOR NOT USING POWERPOINT PRESENTATIONS!!

ZHOFFSHORE

1 DAY COURSE

COACHING FUNDAMENTALS

What does 'coaching' really mean, and as an engineering manager, how do you do it?

This course will focus on how managers can coach their staff in the work environment, with an emphasis on outcomes and positive action. The course will introduce two straightforward models to support the coaching process in the workplace and will provide the opportunity to practise your coaching style.

This one-day course will give you the skills to coach your staff to better performance.

KEY OUTCOMES

- Focus on coaching for the better performance of your staff
- Use an appropriate coaching model to guide the conversation and result in action
- Help your people 'be their best'
- Know when to use 'coaching conversations' to best effect
- Improve your listening skills with focus on 'active listening'
- Use good questioning skills to get to the root cause of the issue

Locations & Dates 2015

3 February 2015
27 August 2015

Prices

Member
£499 + VAT
Non-member
£599 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**



C, D and E

Easy ways to book:

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

LEADING SELF CLIENT CASE STUDY

Giving and receiving feedback

Surrey Satellite Technology Ltd (SSTL) is the world's leading small satellite company with an innovative approach to space engineering. They have been delivering small satellite missions for over 25 years.

CHALLENGE:

SSTL's culture and growth presented both opportunities and challenges to the organisation, making effective communication key, and appropriate leadership critical to success.

In order to maintain and build on their success, it was felt that the feedback process needed more focus and that a stronger emphasis on coaching would facilitate better communication and continued development among the staff members.

SOLUTION:

We designed a workshop and rolled this out to all leaders within the organisation. This both leveraged existing leadership talent and built further competence in coaching and feedback. A highly interactive and practical approach meant that leaders had the opportunity to share ideas and best practice.

Participants gained real experience, having applied some of the techniques and went away with further ideas to implement with their team.

OUTCOME:

Feedback included statements such as 'well worthwhile' and 'excellent' and, more importantly, participants reported an increase in their levels of knowledge in all topic areas together with the motivation and confidence to apply the new skills learnt.

Furthermore, evidence within the business has pointed to an increase in the levels of feedback given and received and employees have felt better supported by managers using a more 'coaching-based' approach.

If you cannot see the programme you would like, please contact us to see if we can create a tailored programme or run a dedicated session.

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

LEADING THE TEAM

The ability to lead and inspire others to achieve goals and work as a cohesive unit is vital to any individual who manages a team or has responsibility for the performance of others.

Our Leading the Team programmes are designed to meet the needs of any engineer with, or aspiring to, people management responsibilities.

By blending the necessary interpersonal skills with proven management tools and techniques, engineers can meet the complex challenge of being a leader in an engineering environment.

Whether managing people and projects, or operating as a supervisor, team leader or senior team leader; whether leading a small team on-site or a large team over international borders remotely, the right training can lead to almost instant results and improved business outcomes.

IF YOU CANNOT SEE
THE PROGRAMME
YOU WOULD LIKE,
PLEASE CONTACT
US AS WE ALSO
OFFER TAILORED
PROGRAMMES AND
DEDICATED SESSIONS

LEADING THE TEAM

22	MENTORING FOR MPDS
23	MENTORING SKILLS
24-25	FUNDAMENTALS OF ENGINEERING MANAGEMENT (CMI LEVEL 3)
26	NEW ENGINEERING MANAGER
27	PERFORMANCE MANAGEMENT AND APPRAISAL SKILLS
28 - 29	PATHWAY TO LEADERSHIP EXCELLENCE (CMI LEVEL 5)
30	SENIOR ENGINEERING MANAGER
31	OPERATIONAL RISK MANAGEMENT
32	INTERNATIONAL MANAGEMENT
33	LEADERSHIP PRACTICE

SECTION KEY:

 LDN	London	 BRS	Bristol	 GLS	Glasgow
 AB	Aberdeen	 COV	Coventry	 MANC	Manchester
 UK SPEC	Competences	 VTL	Virtual		

1 DAY COURSE**MENTORING FOR MPDS**

Receive an overview of mentoring a graduate through our Monitored Professional Development Scheme.

We encourage all existing mentors working with MPDS to attend one of these regional seminars so they can develop their awareness, reinforce their understanding of the role and update their mentoring skills.

The seminars are a great networking event for mentors, HR and training staff alike, providing an excellent opportunity for the exchange of ideas and to develop best practice. The syndicate work involved will help you put these ideas into action in the workplace.

TOPICS COVERED INCLUDE:

- Membership requirements
- Classes of membership
- The Institution and profile of a professional engineer
- Benefits of being recognised as an Incorporated or Chartered Engineer
- EC Standard for Professional Engineering Competence (UK-SPEC)
- Preparing for company accreditation
- MPDS: what it is and how it works
- Roles and responsibilities of a mentor
- Becoming a Member outside MPDS
- The Member application and the Professional Review Interview
- Continuing professional development

Locations & Dates 2015

	3 March 2015
	2 June 2015
	29 September 2015
	2 December 2015
	19 May 2015
	3 November 2015
	27 January 2015
	21 July 2015
	28 April 2015
	18 August 2015
	3 February 2015
	25 August 2015
	17 March 2015
	20 October 2015

Prices £250 + VAT



IF YOUR COMPANY IS RUNNING , OR THINKING OF RUNNING MPDS, THIS COURSE PROVIDES THE RIGHT LEVEL OF DETAIL FOR MENTORS TO REFRESH OR ADJUST THEM ON ITS PURPOSE AND REQUIREMENTS.

JAMES WHITEHOUSE
MEGGITT

1 DAY COURSE**MENTORING SKILLS**

Learn how to build successful mentor and mentee relationships.

Mentor programmes provide an effective platform for knowledge transfer and can be the perfect vehicle for giving new engineers the opportunity to learn from the experience of their senior colleagues. Mentors and mentees jointly take the lead in proactively driving the relationship as a key contributor to their engineering journey.

Providing support for mentors to establish and develop the key skills required of a successful mentor, this programme includes how to manage the relationship and ensure that mentees are able to progress, grow their capability and drive their career.

KEY OUTCOMES

- Understand what mentoring is, how it differs from other management interventions and the value it brings to the mentor, the mentee and the organisation
- The importance of following a structured mentoring process and the value this can bring to the mentoring relationship
- Understand the fundamentals of a successful mentoring relationship
- The role of the mentor in the mentoring process and the skills needed to fulfil this role effectively
- The role of the mentee in the mentoring process and the skills needed to fulfil this role effectively
- Reflect on your mentoring style and consider any areas for improvement

Locations & Dates 2015

	4 March 2015
	3 June 2015
	30 September 2015
	3 December 2015
	20 May 2015
	4 November 2015
	28 January 2015
	22 July 2015
	29 April 2015
	19 August 2015
	4 February 2015
	26 August 2015
	18 March 2015
	21 October 2015

Prices **Member**
£499 + VAT
Non-member
£599 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF



C, D and E

JOINT DISCOUNT
Attend Mentoring Skills and Mentoring for MPDS for £649

FUNDAMENTALS OF ENGINEERING MANAGEMENT

CMI Level 3 certificate in first line management.

About the programme

This has been designed to offer a flexible management programme for developing engineering managers. As a new or aspiring line manager, with the Fundamentals of engineering management programme you have the opportunity to choose to attend the training programme only, or undertake the CMI Level 3 qualification. Attend this programme to boost your confidence in stepping up to your first line management role. You can choose to attend the modules only, or work towards the CMI qualification.



What does the qualification route entail?

If you choose to attend the qualification route you'll be studying towards the CMI Level 3 certificate in first line management. Upon completion of the training, you'll be required to complete assignments in two modules to demonstrate that you have understood and can apply the key concepts. The number of assignments you'll undertake depends on your starting point as exemptions exist for delegates registered with the Engineering Council.

How will the Institution support my qualification?

- As well as attending training programmes led by experts in their field, you will receive:
- CMI membership for the duration of your studies (up to 3 years)
 - Access to thousands of online management resources
 - Access to assessment webinars led by the course tutors
 - Programme management to support your learning journey

Target audience

This programme is designed for new and aspiring managers. Typical delegates have undertaken their first line management role in the last 12 months or are seeking formal management training to support their development.

Modules and learning paths

This programme requires attendees to select an appropriate learning pathway. Delegates who are professionally registered with the Engineering Council receive exemptions against some modules.

About CMI
 With 450 corporate and 87,000 individual members, the Chartered Management Institute is the only professional body in the UK dedicated to promoting the highest standards of management and leadership. The CMI's chartered status is the government's stamp of approval, unique in its sector and your guarantee of the integrity and quality of its advice and portfolio of services.

FUNDAMENTALS OF ENGINEERING MANAGEMENT

Which modules should I attend?

If you want to study for the CMI Level 3 certificate in first line management, you'll need to undertake an assessment for the Performance Management module and one other module of your choice. You must attend both mandatory modules and at least one optional module.

<p>New engineering manager 2 days - Mandatory This course explores the challenges that line managers face. You'll be challenged to consider how you set objectives, delegate and motivate your team.</p>	<p>Performance management and appraisal skills 1 day or virtual - Mandatory This course explores how you get the best out of your team. You'll be covering appraisals, conflict and objective setting.</p>
<p>Communication & influencing 2 days - Optional This course will help you communicate with your team. You'll learn how to work with difficult individuals and tailor your communication to the recipient.</p>	<p>Applying ethical principles 1 day - Optional This module has been designed to explore the ethical issues engineers face every day and increase your ability to deal with moral complexity.</p>

Pricing

Pricing varies depending on your module selection and whether you want to study for the qualification or attend training only. Contact us for a customised quote based on your selection. EngTech students need to undertake one assessment, excluding New Engineering Manager.

Attendance only	From £1,600
CMI Level 3 Certificate	From £1,995

Find out more:

- T: +44(0)207 304 6907**
E: training@imeche.org
W: www.imeche.org/learning

2 DAY COURSE**NEW ENGINEERING MANAGER**

Managerial excellence for first time and aspiring managers.

Our most popular training programme has been specifically designed for engineers who take up responsibility for managing people for the first time.

Thanks to a comprehensive toolbox of leadership and management tools, this interactive and intensive course is the foundation of your future career in management.

Find practical solutions to the most common problems managers face such as: how to motivate people, how to build a successful team, and how to engage your team in departmental goals. This course provides you with essential knowledge for taking the step from being a technical expert to a manager.

KEY OUTCOMES

- Set, monitor and achieve SMART goals for yourself and your team
- Motivate all the members of your team to work towards the team goals
- Delegate appropriately and effectively
- Use performance management to get the best out of everyone
- Take appropriate steps to deal with poor performance

RELATED COURSES

- Pathway to leadership excellence CMI Level 5 qualification (p 28-29)
- Senior engineering manager (p 30)

Locations & Dates 2015

	13-14 January 2015
	25-26 March 2015
	22-23 June 2015
	13-14 October 2015
	29-30 July 2015
	11-12 November 2015
	22-23 April 2015
	25-26 August 2015
	3-4 February 2015
	30 Sept - 1 Oct 2015
	24-25 February 2015
	16-17 September 2015
	6-7 May 2015
	7-8 December 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF



C, D and E

Mandatory module as part of the Fundamentals of Engineering Management programme page 24-25

**1 DAY COURSE****PERFORMANCE MANAGEMENT AND APPRAISAL SKILLS**

Managing the performance of individuals and teams is a critical management activity.

Organisations need to get the most value from their resources so it's up to line managers to ensure they are delivering maximum value from the people in their teams and departments.

This programme is designed for new line managers seeking to understand the performance management and appraisal process and for existing managers and human resource professionals as a refresher and skills builder. Within the programme you will be introduced to best practice performance management tools, techniques and templates for use within your organisation.

WORKSHOP OBJECTIVES

- Understand the purpose and benefits of appraisals and performance reviews
- Avoid the common pitfalls when handling performance reviews
- Plan and prepare for effective performance management
- Demonstrate and practise the key skills for an interactive discussion including listening, questioning and providing feedback
- Tackle performance issues effectively and confidently
- Learn how to set objectives in order to develop those who are both high and low performers

What is virtual delivery?

Attending the virtual sessions for this course means you will undertake a series of group and individual modules held online. You will need to undertake self guided study but you are not required to be physically present to complete this module.

Locations & Dates 2015

	30 April 2015
	19 November 2015
	5 June 2015
	28 September 2015

Prices

Member
£499 + VAT
Non-member
£599 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF



C and D

Mandatory module as part of the Fundamentals of Engineering Management programme page 24-25

Mandatory module as part of the Pathway to Leadership Excellence programme page 28-29



PATHWAY TO LEADERSHIP EXCELLENCE

CMI Level 5 qualification in leadership & management.

About the programme

A comprehensive and flexible management programme, this CMI pathway has been designed for developing engineering managers. By offering a range of modules, delegates can choose the most suitable learning path around their workload and commitments.

The CMI programme has been developed to consider managers' varying experience and help them progress their level of profession registration. You can choose to attend the modules only, or work towards the full CMI qualification. Upon achievement of the qualification, you'll be able to apply to become a Chartered Manager with the CMI.



What will the qualification route entail?

If you choose to attend the qualification, you'll be studying towards the CMI Level 5 Diploma in leadership & management. Upon completion of the required modules, you will be required to complete assignments to demonstrate that you have understood and can apply the key concepts. The number of assignments you will undertake depends on your entry point as exemptions exist for delegates registered with the Engineering Council.

How will the Institution support my qualification?

As well as attending training programmes led by experts in their field, you will receive:

- CMI membership for the duration of your studies (up to 3 years)
- Access to thousands of online management resources
- Access to assessment webinars led by the course tutors
- Programme management to support your learning journey

Target audience

This programme is designed for managers with experience of managing teams, individuals and resources. Typical delegates have had a performance management role for two years and are seeking to develop their leadership capability with a recognised qualification.

CMI modules and learning paths

This programme requires attendees to select an appropriate learning pathway. Delegates who are professionally registered with the Engineering Council receive exemptions against some modules and can attend a fast track programme.

About CMI
With 450 corporate and 87,000 individual members, the Chartered Management Institute is the only professional body in the UK dedicated to promoting the highest standards of management and leadership. The CMI's chartered status is the government's stamp of approval, unique in its sector and your guarantee of the integrity and quality of its advice and portfolio of services.

PATHWAY TO LEADERSHIP EXCELLENCE

Which modules should I attend?			
	CEng – All mandatory and 1 optional module	IEng – All mandatory and 2 optional modules	All other managers – All modules
Senior engineering manager – 2 days This course looks at the personal resources that managers and leaders have available to them and how to make the best of them. You'll be covering change, strategy, motivation and conflict.	Mandatory	Optional	Mandatory
Performance management – 1 day This course explores how you get the best out of your team. You'll be covering appraisals, conflict and objective setting	Mandatory	Mandatory	Mandatory
Financial management – 2 days This module will help you understand the financial information that managers use. You'll be introduced to management and financial accounting and learn how to make financial decisions.	Optional	Mandatory	Mandatory
Leadership practice – Virtual This module will examine the relationship between leadership and management and how a manager's style can influence the team's commitment. This module is delivered virtually using a combination of webinars and coaching.	Optional	Optional	Mandatory
Operational risk management – 2 days This course will explore your approach to the identification and mitigation of risk. You'll cover the techniques used in managing a risk response.	Optional	Optional	Mandatory

Pricing

Pricing varies depending on your module selection and whether you want to study for the qualification or learning only. Contact us for a customised quote based on your selection.

	CEng	IEng	Not registered
Attendance only	From £2,000	From £2,000	From £2,000
CMI Level 5 Diploma	From £2,295	From £2,895	£3,995

Easy ways to book:

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

2 DAY COURSE

SENIOR ENGINEERING MANAGER

Develop essential skills to be a successful strategic leader.

Aimed at managers who set the strategic direction for their teams. Participants on this course are typically engineers or other technical professionals who have experience in a man-management role and now want to take their skills to the next level as a business leader.

This course looks at the resources managers and leaders have and how to make the best use of them. The focus of the course is on how to lead a department or team where you are not able to have close contact with everyone on a daily basis, either because the team is too large or too remote.

KEY OUTCOMES

- Set the strategy for your team, to contribute fully to your company's vision and mission
- Motivate, manage and communicate with your team to engage them fully in the company's goals
- Successfully manage and implement change programmes which will become embedded in normal business practice
- See when conflict is occurring and manage it effectively
- Manage 360° - not only your team, but also your manager, your peers and most importantly yourself, in order to operate consistently at personal peak performance

RELATED COURSES

- New engineering manager (p26)
- Pathway to leadership excellence CMI Level 5 qualification (p28-29)
- International management (p32)

Locations & Dates 2015

LDN	11-12 February 2015
	14-15 July 2015
	15-16 December 2015
AB	28-29 April 2015
	5-6 October 2015
BRS	2-3 June 2015
	3-4 November 2015
MANC	2-3 March 2015
	21-22 September 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

UK SPEC
B, C, D and E

Mandatory module as part of the Pathway to Leadership Excellence programme page 28-29



NEW 2 DAY COURSE

OPERATIONAL RISK MANAGEMENT

In a world of increasing uncertainty the importance of risk management has grown exponentially.

Risks to companies are no longer limited to just those that are created by competitors or the odd natural disaster, but from all aspects of the internal and external working environment, including such considerations as cyber space crime and terrorism.

Managers need to take account of these new and growing areas of risk and organisations are looking for engineers who have a good multi-disciplinary approach and understanding of this specialist area. This programme provides a broad multi-disciplinary grounding in risk identification, assessment and management and the links with disaster recovery and business continuity.

KEY OUTCOMES

- Understand the many and varied aspects of risk as applicable to a wide range of organisations
- Rank and manage risk in alignment with a specific and predetermined 'risk appetite'
- Identify, select and use appropriate methodologies for the evaluation, and treatment of risk
- Understand and articulate the key principles of disaster recovery

Locations & Dates 2015

LDN	6-7 May 2015
	14-15 October 2015
	16-17 December 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

UK SPEC
A, B, C, D and E

Optional module as part of the Pathway to Leadership Excellence programme page 28-29



Easy ways to book:

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

2 DAY COURSE

INTERNATIONAL MANAGEMENT

BRING A COLLEAGUE FOR FREE

Making a success of remote management and working with other cultures.

It is increasingly common for managers to work internationally and across cultures. This presents a set of unique challenges and managers need an awareness of how best to influence individuals and teams whilst maintaining and developing relationships.

This two-day programme will provide you with practical tools and techniques to improve your interaction when you are working with or leading international teams. The course will also introduce you to the barriers that you might face when working across cultures and how you can prepare yourself and your team.

KEY OUTCOMES

- Appreciate the role of culture and its effect on people and organisations
- Develop skills for more effective cross cultural communication
- Understand your own influencing style through using the Institution's 'Influencing Styles Diagnostic', and how you can adapt your style to improve your ability to influence others
- Identify the principles of best practice remote team working
- Be able to leverage a number of tools to lead higher performance in remote teams

Locations & Dates 2015

 9-10 July 2015
8-9 December 2015

Prices

Member
£995 + VAT

Non-member
£1,215 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF

 C and D

NEW COURSE

VIRTUAL PROGRAMME

LEADERSHIP PRACTICE

Within organisations, leaders who are effective need to demonstrate trust and be capable of making sure the vision of the organisation is clearly understood by all employees.

Together with the responsibility for setting direction there is the need for organising workloads /outputs and of course motivating and inspiring teams and individuals.

This virtual programme is a fantastic opportunity to explore some of the theories and experiences of others. Delegates will consider 'real life' examples and apply these to their current work environment or an experience they have had previously.

PROGRAMME OBJECTIVES

- Understand the links and differences between management and leadership
- Understand how personal values and organisation values can affect each other.
- Identify and understand leadership styles that may be applicable when achieving organisational values.
- Consider what contribution leaders make when creating the organisational vision and communicating it to others.
- Understand how empowerment, trust and ethical leadership impact on an organisation and its employees
- Explore how personal energy, beliefs and positive commitment can impact on leadership styles.
- Understand how different leadership styles can have an impact on achieving organisational objectives.

What is virtual delivery?

Attending the virtual sessions for this course means you will undertake a series of group and individual modules held online. You will need to undertake self guided study but you are not required to be physically present to complete this module.

Locations & Dates 2015

 18 May 2015
7 August 2015
2 November 2015

Prices

Member
£499 + VAT

Non-member
£599 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF

 C, D and E

Optional module as part of the Pathway to Leadership Excellence programme page 28-29



A VERY THOUGHT PROVOKING COURSE WITH GOOD DEBATE TO BRING THE KEY MESSAGES HOME.

Easy ways to book:

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

BUILDING A HIGH PERFORMANCE CULTURE

CLIENT CASE STUDY

BACKGROUND

Our global client has a strategic focus on high performance and high engagement.

This underpins their 'People and Business Strategy'.

Against this background, one Head of Department in the UK – managing a team of 20 managers over several locations wanted to take the team from good to great.

Initially we worked with the team to articulate what that meant... when you are “great” what will you be doing, seeing, hearing, feeling. This is what they decided:

“We want to build a culture where each of us in the team is able to give and receive feedback freely, make informed decisions, and feel good about our work.”

“Our aim is to continually evolve by concentrating on small individual and collective performance improvements. By doing so, we will help maintain and improve our competitive position/ advantage.”

OBJECTIVES

Having articulated the vision, we then worked with the team to agree specific objectives:

- To understand what is meant by High Performance Culture (HPC) and identify the common key attributes
- Refine these attributes into behaviours to fit the department and encourage the spread of these agreed behaviours
- Develop a range of tools, tips and techniques that would assist with managing/encouraging high performance
- Build a more cohesive management team that inspires everyone to understand the need for HPC and to take action

THE PROCESS

Taking the organisation's requirements for a High Performance Culture as the basis, the team externally researched best practice.

So that every opinion could be heard, the team used a poll to determine which attributes were most important for the team to work on.

Working with the team, we helped them turn these attributes into specific department behaviours (which would sit alongside the organisation's required behaviours).

To support the managers in developing and role modelling these behaviours, we designed a series of short, high energy training events. Our brief was to be “off the wall” so that these events would feel different.

To maintain momentum, the training events called Learning Bytes were run every four to six weeks with the whole management team.

The sessions focused on:

- Behavioural profiling – understanding self and others
- Effective communication and feedback
- Creative thinking
- Coaching

Each session was linked, building one on the other. The “red thread” throughout was that of creating a high performance culture. We constantly asked “how does this help you?” And we showed how it would help.

RESULTS

An important part that the Learning Bytes played in the overall project was that they brought everyone together, collective behaviours were agreed and committed to, and there was joint learning and enjoyment!

This accelerated the process of Building a High Performance Culture because it created an even more tight knit management team with real clarity around what was required and who had begun to role model many of the behaviours identified.

SAVE MONEY WITH US YOUR EARLY BIRD OFFER

TAKE ADVANTAGE OF LOWER RATES WHEN YOU BOOK YOUR TRAINING EARLY.

RECEIVE 10% DISCOUNT WHEN YOU BOOK ANY PUBLIC TRAINING PROGRAMME TWO MONTHS IN ADVANCE.

Contact us for more information on Early Bird or other ways to save money.

Please quote '**EARLY15**' at time of booking.

FIND OUT MORE:

T: +44(0)207 304 6907

E: training@imeche.org

W: www.imeche.org/learning

LEADING THE BUSINESS

Help take your business to the next level by building business and commercial acumen.

There is a need for any engineer to widen their area of expertise outside of the technical arena. For the overwhelming majority of engineering organisations, and organisations which hire engineers, there is an overriding commercial objective to their operations; being commercially aware and senior.

Whether you are a project manager undertaking a new venture, leading a business unit to meet objectives or aspiring to more senior management roles, you can make a greater impact in your organisation by seizing the opportunity to improve business outcomes in addition to completing technical objectives.

Any engineer seeking career development knows they need to balance their technical expertise with sound decision making to help their business progress; the commercially aware engineer understands the need to control costs, deliver customer value and protect their organisation's position.

Leading a business requires well rounded, multi skilled engineers. Our range of programmes are designed to support engineer's contribution to the business they operate in. Managing better projects, making better commercial decisions and securing their business position through adequate protection.



LEADING THE BUSINESS

- 38 APM INTRODUCTORY CERTIFICATE IN PROJECT MANAGEMENT
- 39 APMP PROJECT MANAGEMENT QUALIFICATION
- 40 BUSINESS SKILLS FOR GRADUATE ENGINEERS
- 41 COMMERCIAL SKILLS
- 42 BUSINESS CONTINUITY AND RESILIENCE
- 44 CONSULTATIVE SELLING SKILLS
- 45 COMMERCIAL RISK AWARENESS FOR ENGINEERS
- 46 WINNING BIDS AND TENDERS
- 47 NEGOTIATION SKILLS
- 48 CONTRACT LAW AND CONTRACT DRAFTING
- 49 FINANCIAL MANAGEMENT
- 50 INTRODUCTION TO COST ESTIMATING
- 51 MANAGING SMALLER ENGINEERING PROJECTS
- 52 RESEARCH AND DEVELOPMENT PROJECT MANAGEMENT
- 53 SUCCESSFUL PROJECT MANAGEMENT
- 54 UNDERSTANDING INTELLECTUAL PROPERTY FOR ENGINEERS

SECTION KEY:

-  London
-  Bristol
-  Glasgow
-  Aberdeen
-  Coventry
-  Manchester
-  Competences

2 DAY COURSE

APM INTRODUCTORY CERTIFICATE IN PROJECT MANAGEMENT

Gain an internationally recognised qualification accredited by the APM.

This introductory certificate by the Association for Project Management offers a fundamental awareness of project management for those wishing to gain a broad understanding of the principles of the profession.

The introductory certificate in project management syllabus assesses the key elements of the project management lifecycle and covers 27 knowledge areas from the APM Body of Knowledge (5th edition) including planning and scheduling, communication, teamwork, resource management, project risk management and project reviews.

All participants undertake a one-hour multiple-choice exam at the end of day two. Upon successful completion of the exam, participants will receive a certificate from the APM, the largest professional body for project managers in Europe.

KEY OUTCOMES

- Use a structured framework for managing projects
- Gain clarity at the outset of a project
- Identify and agree key success criteria
- Communicate with and manage the needs of different stakeholders
- Plan projects using a range of planning tools
- Manage risks effectively
- Monitor and control project progress

RELATED COURSES

- APM project management qualification (5 day) (p39)

Locations & Dates 2015

-  14-15 April 2015
-  25-26 August 2015
-  15-16 December 2015
-  19-20 May 2015
-  3-4 November 2015
-  3-4 February 2015
-  13-14 October 2015

Prices

Member
£1,175 + VAT
Non-member
£1,305 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF

-  C and D



VERY GOOD AND INFORMATIVE COURSE. I CAN TAKE THE METHODS LEARNT AND IMPLEMENT IN MY ROLE AS A PROJECT MANAGER.

PAUL SKELTON
HOULDER LTD

5 DAY COURSE

APMP PROJECT MANAGEMENT QUALIFICATION

Improve your effectiveness with this internationally recognised qualification.

There is a growing recognition of the value that competent and capable project management professionals can offer.

Recognised globally by leading organisations, completing APMP opens up many benefits to you. Improve project delivery and your organisation's competitive advantage with this five day course.

Fully accredited by the Association for Project Management, APMP covers 37 knowledge areas from the APM Body of Knowledge, including planning, strategy, execution and resource management. Knowledge of these areas is considered fundamental to managing projects professionally.

Includes sitting the APMP exam at the end of the course.

KEY OUTCOMES

- Apply key project management principles to your project
- Demonstrate your competence as a project manager
- Explain the benefits of project management to your organisation

RELATED COURSES

- APM introductory certificate in project management (p38)
- R&D project management (p52)

Locations & Dates 2015

-  11-15 May 2015
-  5-9 October 2015
-  6-10 July 2015
-  7-11 December 2015

Prices

Member
£2,200 + VAT
Non-member
£2,420 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF

-  C and E



I THOROUGHLY ENJOYED THE COURSE, JUST WHAT I WANTED.

DAVID MANSON
EDWARDS VACUUM

2 DAY COURSE**BUSINESS SKILLS
FOR GRADUATE ENGINEERS**

Gain practical business skills to broaden your business knowledge.

This programme provides new engineers with a broad range of business skills to improve the impact they have in their organisation in order to drive their career forward.

You will be exposed to a wide range of topics including project management, finance, time management, customer service and the professional responsibilities of an engineer.

The aim is to provide you with an overview of a number of different disciplines, allowing better understanding and interaction with other areas of a business.

TOPICS COVERED:

- Corporate structure and interaction: how the different departments fit together and interface
- The 'internal' customer: how we all have customers who need the output of our work and how to find out and satisfy their needs for professional success
- Basic business finance: how to set and manage a budget; taking responsibility for minimising expenditure throughout the business
- Time management principles: identifying and prioritising important tasks over urgent tasks
- Project management principles, task scheduling, resource allocation
- The role of the engineer in society: duties, responsibilities and professional conduct

KEY OUTCOMES

- Articulate how engineering fits into the organisation structure along with the key deliverables
- Understand the responsibilities of a professional engineer
- Understand project management principles: how to set up and plan a successful project, utilising milestones, resource limitations and workload planning
- Focus on what your personal 'customer' needs: identify your various customers and establish what they need from you
- Manage your time more effectively through better priority setting
- Understand the basics of finance: budgeting and cost control
- Use the appropriate communication medium to get your message across

Locations & Dates 2015

 13-14 May 2015
16-17 November 2015

 16-17 March 2015
28-29 September 2015

Prices

Member
£995 + VAT

Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

 C, D and E

NEW 2 DAY COURSE**COMMERCIAL SKILLS**

Engineers undertake a responsibility for developing and designing solutions for their organisation.

Therefore engineers have a responsibility for the commercial implications for their actions. The global business environment is increasingly competitive with fewer resources, more demanding customers and hungry shareholders. This programme is designed to give engineers an appreciation of the commercial world.

The programme will enable participants to better manage engineering issues that may affect overall business profitability and commerciality. These issues include handling suppliers, customers who demand more than the brief, as well as exploring opportunities to increase value or gain competitive advantage.

The course will also show engineers how they can become and act more commercially aware so that they can improve their personal prospects.

**AFTER THE COURSE YOU WILL BE
ABLE TO:**

- See your role in a broader, more commercial context
- Act, think and behave in a more commercial way
- Hold your 'own' in meetings with commercial colleagues
- Manage customers who make demands for developments not originally specified so that if you want to you can charge more
- Ensure suppliers deliver components to the specification and be able to manage issues with both suppliers and customers such as late delivery, poor quality and pricing challenges
- Understand the business strategy of both employers and customers and align themselves to this to ensure what they do helps deliver the best results for the business
- Appreciate the value of good preparation and groundwork
- Anticipate, identify and manage potential risks, and opportunities
- Make a greater contribution to the profitability of your projects and contracts

Locations & Dates 2015

 18-19 May 2015
19-20 November 2015

Prices

Member
£995 + VAT

Non-member
£1,215 + VAT

 C, D and E

**BRING A
COLLEAGUE
FOR FREE**

Easy ways to book:

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

2 DAY COURSE**BUSINESS CONTINUITY AND RESILIENCE**

Tools to help you respond to climate change, resource constraints and build resilience.

The future holds challenges and opportunities for engineers who are interested in sustainability. Engineering itself could look very different due to the impacts of constrained resources on nearly all aspects of life. In addition, climate change forces us to consider our carbon dioxide emissions and our impact on the environment.

This course provides insight into how engineering might change and how engineers can think differently about sustainability within their organisations. It will enable you to identify organisational risks and the engineering changes required to increase organisational resilience, and to build prosperity, abundance, stability and security.

KEY OUTCOMES

- Identify the business risks and problems facing your organisation because of unsustainable practices
- Find business opportunities available to your organisation from improved sustainability
- Use engineering and non-engineering examples of 'sustainability in practice' to improve your own organisation's sustainability
- Know which tools and management systems can help improve sustainability
- Secure the skills for the future of engineering and sustainability

Locations & Dates 2015

21-22 April 2015
20-21 October 2015

Prices

Member
£499 + VAT
Non-member
£599 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**



E

SAVE MONEY WITH US YOUR LEARNING PASS

WANT THE BEST VALUE TRAINING?

SAVE UP TO 33% WITH A LEARNING PASS

The most cost-effective way to purchase training

- Quicker administration processes
- Can be used across your organisation and is not limited to individuals
- Can be used with any combination of one or two day programmes

For a fixed fee of £4,000* (plus VAT), attend 10 days' training through any combination of programmes from our training calendar.

PLEASE QUOTE PASS15 AT TIME OF BOOKING

FIND OUT MORE:

T: +44(0)207 304 6907

E: training@imeche.org

W: www.imeche.org/learning

*excludes qualification programmes

2 DAY COURSE

CONSULTATIVE SELLING SKILLS

BRING A COLLEAGUE FOR FREE

Improve and develop your selling skills with a consultative approach.

Understanding your clients' needs, their motivations and your ability to add value to their organisation is paramount in developing a successful consultative approach.

This course is intended for engineers involved in selling products or services to clients in an internal and external environment. The focus is on creating relationships rather than the traditional "hard" sales process and utilises a partnership approach that benefits the client and provides long-term rewards for both parties.

KEY OUTCOMES

- Understand your natural sales style, its strengths and limitations
- Create effective long-term partnerships with clients
- Use rapport and questioning techniques to facilitate meaningful needs analysis
- Understand types of buyers, your impact with them, and the primary methods of selling to them
- Feel confident in using consultative methodologies to a wide range of clients

RELATED COURSES

- Communication and influencing skills (p12)
- Negotiation skills (p47)

Locations & Dates 2015

LDN 11-12 February 2015
29-30 September 2015

BRS 20-21 May 2015
17-18 November 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

UK SPEC
C and D

2 DAY COURSE

COMMERCIAL RISK AWARENESS FOR ENGINEERS

Develop a more effective sense of commercial and contract risk awareness.

Through effective management of contract risk, engineers can proactively prepare robust contracts which include contingency plans and risk mitigation. This programme is designed to support engineers in developing solution-based contracts which protect the interests of both parties and encourages collaboration throughout the contract lifecycle.

This course aims to change your attitude to the purpose and value of contracts. They are not just a legal agreement, but a document which represents and assists each party in establishing clarity of respective legal promises. The document should therefore be proactive and support both parties.

KEY OUTCOMES

- See your role in a broader, more commercial context
- Think more strategically when preparing bid submissions or evaluating tenders
- Increase the likelihood of success of winning bids submitted or making the right supplier choice
- Identify the benefits of time spent at the front end, pre-contract award, on drafting and negotiating a solid contract in order to reduce problems later, during contract management stage
- Appreciate the value of good preparation and groundwork, prior to submitting a bid and in advance of a negotiation
- Anticipate, identify and manage potential risks, both before and after contract award
- Make a greater contribution to the profitability of your projects and contracts
- Develop your commercial 'nous'

RELATED COURSES

- Negotiation skills (p47)
- Contract law and contract drafting (p48)
- Financial management (p49)

Locations & Dates 2015

LDN 12-13 March 2015
28-29 September 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

UK SPEC
C, D and E

93% POSITIVE FEEDBACK ON COURSE
QUALITY BY 2014 DELEGATES

Easy ways to book:

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

2 DAY COURSE

WINNING BIDS AND TENDERS

Manage all aspects of a bid proposal effectively and demonstrate your organisation's unique selling points.

In today's competitive environment, responding to bids and tenders is no longer solely the domain of the marketing department. All types of staff get involved in developing bids in response to tenders. The key question you must address in a tender response is from a customer's perspective – why you?

This workshop offers a balanced mix of practical exercises and traditional learning methods. The course equips you to produce high-quality relevant, effective and successful bids.

KEY OUTCOMES

- Establish the key customer requirements and activities, including evaluation criteria
- Outline solutions or ideas to meet customer requirements
- Establish your organisation's competitive position utilising SWOT and PESTLE analyses
- Conduct effective 'bid or no bid' reviews
- Develop high-level win theme and discriminators
- Structure and write proposals
- Conduct reviews
- Manage bids

Locations & Dates 2015

 3-4 June 2015
4-5 November 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

 A, B and C

**BRING A
COLLEAGUE
FOR FREE**

2 DAY COURSE

NEGOTIATION SKILLS

Prepare and execute successful negotiations for win-win outcomes.

We all negotiate as part of everyday life whether on the price of a car, a pay rise or an extension to a deadline. In order to adapt to the situation we need a range of tools and techniques to enable us to flex our style. The key to any negotiation is to avoid selling and to ensure that all parties are in agreement when the negotiation concludes.

This programme has been designed specifically to provide an opportunity to learn new tools and techniques to negotiate in a variety of internal and external scenarios. The course provides an opportunity for you to practise these new skills and receive feedback on your negotiation style and preferences. You will leave the programme with a renewed confidence in seeking win-win outcomes in all negotiations.

KEY OUTCOMES

- Define the goals of your negotiation
- Plan and prepare for the delivery of a successful negotiation
- Understand the need for developing best alternative to a negotiated agreement (BATNA)
- Understand the importance of a win-win approach for future business
- Appreciate the human factors in play during negotiation
- Recognise common negotiation tactics and how to deal with them

RELATED COURSES

- Communication and influencing skills (p12)
- Presentation skills (p17)
- Consultative selling skills (p44)

Locations & Dates 2015

 9-10 June 2015
9-10 December 2015

 22-23 April 2015
13-14 October 2015

 18-19 March 2015
21-22 September 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

 C, D and E



AS AN ENGINEER, WE UNDERSTAND THAT YOU ARE TYPICALLY NEGOTIATING FOR TIME, RESOURCES AND SPACE. OUR CASE STUDIES REFLECT THE CHALLENGES ENGINEERS FACE.

IMECHE

2 DAY COURSE**CONTRACT LAW AND
CONTRACT DRAFTING**

Maximise your contribution to complex engineering contracts.

A contract lays out the understanding between buyer and seller. It should do so clearly and unambiguously. Engineering contracts can be among the most complex and demanding that are put in place and often require input from a range of specialists, including engineers, scientists and project managers.

Drawing upon engineering examples and case studies, this course will support you to maximise your contribution to the contract process.

KEY OUTCOMES

- Understand the fundamentals of contract law and intellectual property law to maximise your contribution to the process
- Understand model forms of contract
- Understand the methods of drafting a contract
- Confidently agree or dispute your own contracts

RELATED COURSES

- Commercial risk awareness for engineers (p45)

Locations & Dates 2015

 17-18 March 2015
4-5 August 2015

 17-18 June 2015
1-2 December 2015

Prices

Member
£995 + VAT

Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

 C, D and E

2 DAY COURSE**FINANCIAL MANAGEMENT**

Make informed financial decisions with this introduction to financial management.

Engineers are frequently required to be familiar with the terminology and statements that accountants use. Technical expertise in projects, service delivery, production or other areas can only be fully realised if engineers understand the accounting and reporting that drives businesses.

This practical course will enable you to develop skills in understanding financial and management accounting. Following completion, you will be able to assess the financial health of your organisation and interpret financial information in order to inform your decision-making.

KEY OUTCOMES

- Understand the financial impact of business decisions
- Appreciate what drives business
- Relate your activities to the success of the business through figures
- Gain the skills to advance in management
- Be able to interact in an informed way with finance professionals
- Understand financial concepts and terminology
- Assess the financial health of a business
- Interpret financial data to support decision making

Locations & Dates 2015

 4-5 March 2015
3-4 August 2015
5-6 November 2015

 11-12 May 2015
5-6 October 2015

Prices

Member
£995 + VAT

Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

 A, B and C

Optional module as part of the Pathway to Leadership Excellence programme page 28-29



If you cannot see the programme you would like, please contact us to see if we can create a tailored programme or run a dedicated session.

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

2 DAY COURSE

INTRODUCTION TO COST ESTIMATING

Learning to prepare credible and deliverable estimates.

The need for good estimating practice is fundamental to a business's commercial viability as well as being a source of sustainable competitive advantage. This course has been created to help those involved in the preparation of an estimate of costs, time and duration for a task, job or project.

Throughout the programme, you will practise a number of estimating methodologies and upon completion will be able to make an informed decision regarding the most appropriate technique to adopt in a range of scenarios. You will develop a range of skills and techniques that may be applied to estimating tasks, whether they be 'simple' internal tasks or complex programmes.

KEY OUTCOMES

- Learn what an estimate is and why we estimate
- Understand the business impact of good and bad cost estimating
- Appreciate the different types of cost in a business
- Select the appropriate cost estimating methodology for a given task
- Apply a work breakdown structure in order to scope the estimating activity
- Estimate labour, materials and overheads
- Apply the seven step guide to estimating
- Comprehend the role of statistics in estimating
- Understand the impact of risk and uncertainty
- Effectively document the estimate

RELATED COURSES

- Financial management (p49)
- Successful project management (p53)

Locations & Dates 2015

 13-14 May 2015
7-8 October 2015

 7-8 July 2015
9-10 December 2015

Prices

Member	£995 + VAT
Non-member	£1,215 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF

 B and C

2 DAY COURSE

MANAGING SMALLER ENGINEERING PROJECTS

Essential tools and techniques for handling multiple small projects.

This course provides an overview of the principles and practice for leading and managing a portfolio of smaller projects in a multi-project, multi-task environment. It presents a range of practical methods and techniques relevant to the smaller project scenario, using exercises and case studies to show how these can be applied.

After attending the course, you will have a range of simple tools and techniques for running a multi-project portfolio and delivering them on time and to budget.

KEY OUTCOMES

- Explain and demonstrate the key principles of successful project management in the multi-project, smaller project environment
- Demonstrate a range of useful project management tools and techniques
- Define the role of, and help you understand the skills required by the project leader
- Provide a structured framework to help you manage multiple projects
- Identify opportunities to improve project management within your organisation

RELATED COURSES

- Preparing engineering specifications (p93)

Locations & Dates 2015

 11-12 March 2015
8-9 July 2015
11-12 November 2015

 27-28 May 2015
27-28 October 2015

Prices

Member	£995 + VAT
Non-member	£1,215 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF

 B and C



A REALLY INTERESTING COURSE WITH PLENTY OF USEFUL HINTS, TIPS, EXAMPLES AND TECHNIQUES.

REUBEN WILLIAMS

AB PRECISION

2 DAY COURSE**RESEARCH AND DEVELOPMENT
PROJECT MANAGEMENT**

Improving R&D competitiveness with tailored project management methods and techniques.

R&D work is, by definition, hard to predict. Yet the formal disciplines of project management can provide a means of helping to plan, organise and control multi-disciplinary projects without stifling innovation.

This intensive two-day course specifically deals with the management of R&D projects, which require some differences in approach to conventional project management. R&D must operate strategically in the organisation, becoming a key driver of business success. No longer can a good R&D manager rely only on technical expertise.

This programme provides a range of methods and techniques that will help those attending plan and deliver R&D projects in a more professional way.

KEY OUTCOMES

- Appreciate the elements of a sound process for setting up and managing R&D projects
- Effectively manage R&D projects so that objectives and key success criteria are established and efficiently achieved
- Clarify the scope of work required to meet project objectives
- Ensure resources for R&D projects are properly identified, costed and allocated
- Make sure project responsibilities and accountabilities are defined and agreed
- Plan and schedule the project activities to meet deadlines
- Better deal with project risk and uncertainties
- Manage stakeholder relationships and information flows

RELATED COURSES

- Preparing engineering specifications (p93)

Locations & Dates 2015

 15-16 April 2015
4-5 August 2015
17-18 November 2015

 13-14 May 2015
2-3 December 2015

 18-19 February 2015
22-23 July 2015

 25-26 March 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

 A, B and C



**LEAVING FEELING EXCITED TO IMPLEMENT
MANY OF THE TOOLS/ PROCESSES.**

DAVID TWIGG
OLIVER VALVES

2 DAY COURSE**SUCCESSFUL PROJECT
MANAGEMENT**

Equipping engineers with the skills they need to lead successful projects.

This programme has been designed to help those who aspire to, or already lead, project teams to develop the essential skills required to become a successful project manager. Projects come in all shapes and sizes, but certain key principles apply to all. This programme highlights these key principles and is developed from comparative studies of projects that have succeeded and failed.

This course will equip you with the skills to make a success of project management. The programme uses a blend of theoretical and practical sessions to ensure that you have the opportunity to apply the methods and techniques being presented.

KEY OUTCOMES

- Define the goals of your project, manage change and avoid 'scope creep'
- Build, develop and maintain realistic project plans
- Organise, delegate and co-ordinate work activities
- Identify, evaluate and manage project risks
- Ensure work programmes are implemented to time and budget
- Provide effective leadership to project teams
- Apply the disciplines needed to manage multiple project assignments
- Understand the financial justification for accepting the project

RELATED COURSES

- APM introductory certificate in project management (p38)
- APMP project management (p39)
- Introduction to cost estimating (p50)

Locations & Dates 2015

 10-11 March 2015
5-6 August 2015
9-10 December 2015

 22-23 January 2015
29-30 September 2015

 22-23 July 2015
11-12 November 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

 B and C

2 DAY COURSE**UNDERSTANDING INTELLECTUAL PROPERTY FOR ENGINEERS**

Realise intellectual property opportunities and mitigate its threats.

Intellectual property (IP) is the collective term for patents, design rights, copyrights, trademarks and confidential information. Failure to take account of IP at the appropriate time can prevent a product or service getting to market, or leave that product vulnerable to copying once on the market.

Using engineering case studies, this course will help you understand the essential steps for securing your intellectual property and managing the risk of infringing third-party intellectual property. Costs, processes and timescales will also be explained, helping you to work more effectively to realise opportunities and reduce the threats associated with intellectual property.

KEY OUTCOMES

- Understand what intellectual property can and cannot do
- Know the important pitfalls to avoid
- Be aware of your options when faced with a problematic third party patent
- Properly understand Intellectual Property Office communications
- Use intellectual property databases to determine the intellectual property landscape
- Navigate a patent document and extract key data
- Work more cost-effectively with your intellectual property professionals

RELATED COURSES

- Innovation and problem solving skills (p15)
- New product introduction (p76)

Locations & Dates 2015

18-19 June 2015
19-20 November 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**



B and C

**IN-COMPANY TRAINING**

We specialise in developing leadership and management programmes that are tailored to meet the needs of your organisation.

Working alongside your organisation we will assess the business and management skills that are missing and help individuals to optimise their own performance in self-leadership training, team leading and business management.

Below is an example programme which takes participants through all phases of leadership, enabling employees to develop their own skills to benefit the organisation they are part of.

Our programmes could include courses on all the skills outlined or a selection that meets your particular requirements. This tailored approach will maximise the benefit to your organisation by utilising a combination of our training courses.

We use a blended learning approach to support this type of tailored programme, including:

- **Face-to-face interactive workshops to practise new techniques and share knowledge**
- **Webinars available on our personal platform, bringing participants together virtually to embed learning and share experiences**
- **1:1 coaching to assist individuals to reach their goals**

PRE-PROGRAMME WORK

A stimulus to the programme: preparatory reading or a relevant survey to complete, such as a 360° feedback tool.

MODULE 1: Self-leadership

- Self-assessment tool, increasing self-awareness
- Develop understanding of how participants' style and approach could be viewed by others
- Investigating values and attitudes
- Self-management techniques including time management as a foundation of success
- Communication skills
- Presentation skills

MODULE 2: Leading teams

- Theory of teams and groups
- Characteristics of high-performing teams
- Team Performance Diagnostic, driving improved team effectiveness
- Motivation theory

- Remote teamwork
- Cross-cultural awareness
- Managing performance
- Coaching principles
- The leader as mentor
- Handling difficult situations
- Resolving conflict

MODULE 3: Leading the business

- Setting vision, mission and strategy
- Commercial awareness principles
- Delivering competitive advantage
- Market forces and their impacts
- Financial awareness
- Risk-taking and risk management
- Using delegation to improve the business and the individual
- Inspirational leadership
- Leadership communication

Contact us

To discuss the tailored training programmes we can create and deliver for your business, please contact us today.

Web: www.imeche.org/training Tel: +44 (0)20 7304 6907 Email: training@imeche.org

PROFESSIONAL QUALIFICATIONS FOR MECHANICAL ENGINEERS

WHY QUALIFY WITH THE INSTITUTION?

- The highest quality resources and expertise
- A dedicated support team at every stage of your learning
- 24/7 access to the LMS, (the Learning Management System) which provides a range of resources to support your development
- Qualification programmes that often support a choice of modules and training locations
- CPD hours – proving your commitment to improving and developing your skills

FUNDAMENTALS OF ENGINEERING MANAGEMENT (CMI LEVEL 3)

This qualification is aimed at new line managers and those seeking their first line management position. You'll learn the new skills you need to take the step up.

See page 24-25

PATHWAY TO LEADERSHIP EXCELLENCE (CMI LEVEL 5)

This qualification is aimed at more experienced managers and challenges you to drive your organisation forward. Once you have completed the qualification you can apply to become a Chartered Manager with CMI.

See page 28-29

APM INTRODUCTORY CERTIFICATE IN PROJECT MANAGEMENT

The Introductory Certificate in Project Management syllabus assesses the key elements of the project management lifecycle and covers 27 knowledge areas from the APM Body of Knowledge 5th edition including planning and scheduling, communication, teamwork, resource management, project risk management and project reviews. Designed for all engineers working in projects of all sizes.

See page 38

APMP PROJECT MANAGEMENT QUALIFICATION

The focus of this intensive course is to provide participants with a level of knowledge that will enhance your effectiveness as a project manager using a syllabus based upon the Body of Knowledge (BoK). Designed for project managers with experience.

See page 39

LEAN PRACTITIONER

This programme has been designed to support engineers in applying Lean tools within their organisation. A Lean Practitioner is able to create process speed by reducing waste using the associated tools.

See page 71

SIX SIGMA YELLOW BELT

Six Sigma Yellow Belt is awarded to an engineer that supports the implementation of improvement projects as part of a team. Attendees on this qualification will need to demonstrate how they are applying Six Sigma tools within their projects.

See page 73

BRING A COLLEAGUE FOR FREE

PLEASE QUOTE COLLEAGUE15 AT THE TIME OF BOOKING

SAVE MONEY WITH US – BRING A COLLEAGUE FOR FREE

The Institution provides a range of training to help you develop and grow.

As well as your own personal development, it helps to have a strong team by your side. That's why selected leadership and management programmes have a unique special offer.

NEGOTIATION SKILLS (P47)

PRESENTATION SKILLS (P17)

COMMUNICATION SKILLS (P12)

MANAGING TIME (P16)

CONSULTATIVE SELLING (P44)

COACHING FUNDAMENTALS (P18)

COMMERCIAL SKILLS (P41)

INNOVATION AND PROBLEM SOLVING SKILLS (P15)

INTERNATIONAL MANAGEMENT (P32)

Contact us for more information on this offer or other ways to save money.

Web: www.imeche.org/training

Tel: +44 (0)20 7304 6907

Email: training@imeche.org

RAILWAY

“Railway engineers are facing more and more challenges due to the dramatic increase in passenger and freight traffic and the requirement for railway operation to perform at higher and higher levels of safety, reliability and efficiency. The levels of technology being introduced to meet these demands and the increased use of advanced control systems and computer simulation need an engineering workforce with appropriate knowledge and skills to ensure consistent high levels of performance of the system.

As equipment and tools become more sophisticated and innovations in many areas including improved materials and manufacturing and operational techniques make an impact, it is more than ever essential that all those involved with design, planning, operation and maintenance of the railway have and maintain the highest possible level of skills and competence.

Whether you are a project manager undertaking a new venture, leading a business unit to meet objectives or aspiring to more senior management roles, you can make a greater impact in your organisation by seizing the opportunity to improve business outcomes in addition to completing key technical objectives.

The Railway Division actively supports education and training of railway engineers as well as encouraging research and development to improve the performance of the industry. The courses presented here have been developed with the support of experts from the Railway Division and I thoroughly commend them to you”.

PROFESSOR SIMON IWNICKI
CHAIR OF THE IMECHE RAILWAY DIVISION



RAILWAY

60	INTRODUCTION TO ROLLING STOCK
60	TRACTION AND BRAKING
61	FLEET MAINTENANCE - INTRODUCTION
61	FLEET MAINTENANCE - ADVANCED
63	VEHICLE DYNAMICS AND VEHICLE TRACK INTERACTION
63	VEHICLE ACCEPTANCE AND APPROVALS
64	TRAIN CONTROL AND SAFETY SYSTEMS
64	TRAIN COMMUNICATION AND AUXILIARY SYSTEMS
65	TRAIN STRUCTURAL INTEGRITY
66	INTRODUCTION TO RAILWAY SIGNALLING TECHNOLOGIES

SECTION KEY:



London



Competences

1 DAY COURSE**INTRODUCTION TO ROLLING STOCK****Key design principles affecting the performance of railway systems.**

Gain a basic understanding of the role of traction and rolling stock within the context of railway systems as a whole.

This workshop introduces you to vehicle subsystems and components and enables you to analyse how vehicle design impacts performance and safety requirements.

KEY OUTCOMES

- Recognise types of traction and rolling stock and common variants
- State the main subcomponents for each type
- Explain the functional, interface and safety requirements
- Recognise and identify common vehicle related hazards

Locations & Dates 2015

 24 March 2015
6 October 2015

Prices **Member**
£400 + VAT
Non-member
£450 + VAT

 A

1 DAY COURSE**TRACTION AND BRAKING****Principles of traction and braking for railway engineers.**

A general introduction to traction and braking systems on trains and their control.

The one-day programme introduces you to the different types of traction and braking systems including their principles of operation, main components, failure modes and maintenance and safety requirements.

KEY OUTCOMES

- Explain the principles of traction and braking
- Recognise types of traction and braking systems and controls and common variants
- State the main subcomponents for each type
- Explain the safe operating limits and testing standards
- State the maintenance requirements and inspection regimes for common types

Locations & Dates 2015

 25 March 2015
7 October 2015

Prices **Member**
£400 + VAT
Non-member
£450 + VAT

 A and B

1 DAY COURSE**FLEET MAINTENANCE – INTRODUCTION****Improve your processes and fleet maintenance relationships.**

This workshop introduces you to fleet maintenance regimes and processes.

Improve your knowledge of maintenance regimes and contractual arrangements and the key drivers of fleet maintenance decision making including costs, reliability and safety.

KEY OUTCOMES

- Describe the different types of maintenance regimes
- Explain the different types of contractual arrangements relating to the maintenance of fleets
- Identify the reasons and process for changing maintenance regimes
- Recognise the key components of a successful maintenance organisation

Locations & Dates 2015

 14 April 2015
13 October 2015

Prices **Member**
£400 + VAT
Non-member
£450 + VAT

 C

1 DAY COURSE**FLEET MAINTENANCE - ADVANCED****Understand the issues affecting rail vehicle performance and cost of maintenance.**

Introducing participants to the tools and techniques used in today's rail vehicle maintenance environment to improve reliability, how they can be used in an efficient production facility and the key stages involved.

Using case studies where procedural and cultural changes have delivered real cost savings and improved production for both operators and maintainers, benchmark your current methods against best practice.

KEY OUTCOMES

- Understand the current key drivers for reliability improvement
- Describe the reliability tools and approaches available
- Understand the key elements of an efficient production facility
- Describe the key stages of an improvement programme
- Apply Lean tools to the process

Locations & Dates 2015

 15 April 2015
14 October 2015

Prices **Member**
£400 + VAT
Non-member
£450 + VAT

 A, B and E

SAVE MONEY WITH US RAILWAY LEARNING PASS

The Learning Pass enables your organisation to take advantage of our comprehensive programme of railway training.

With the Learning Pass, you can book training for your engineers - both Institution members and non-members - at a significant discount.

The Learning Pass offers:

- A discount across all courses featured in this brochure
- Quicker administration processes
- The freedom to train engineers across your organisation, not limited by individuals and available to both members and non-members of the Institution

Please quote **RAIL15** at time of booking.

BOOK 5 DAYS OF TRAINING FOR JUST £1,500*
* Terms and conditions apply.

Find out more:
T: +44(0)207 304 6907
E: training@imeche.org
W: www.imeche.org/learning

1 DAY COURSE

VEHICLE DYNAMICS AND VEHICLE TRACK INTERACTION

Understand the dynamics of railway vehicles to improve safety, comfort and asset life.

This one-day workshop equips you with a general understanding of vehicle dynamics and its importance in vehicle safety, ride comfort, infrastructure damage and economic asset life.

KEY OUTCOMES

- Understand the principles of vehicle dynamic behaviour
- State the key functional and interface requirements required of running gear and suspensions
- Recognise the factors affecting vehicle dynamic behaviour and safety
- Understand how vehicle track interaction leads to degradation of both vehicle and track components and how these can lead to accidents
- Have an appreciation of vehicle dynamics modelling and testing

Locations & Dates 2015

 14 May 2015
22 October 2015

Prices **Member** £400 + VAT
Non-member £450 + VAT

 A

UPDATED FOR 2015

1 DAY COURSE

VEHICLE ACCEPTANCE AND APPROVALS

An introduction to acceptance procedures which apply across the rail network.

Equipping you with a basic understanding of vehicle acceptance procedures, including authorisation processes and vehicle acceptance bodies.

This workshop introduces the relevant safety management systems and authorisation procedures, as well as the latest European Union directives.

KEY OUTCOMES

- Explain the historical development of rolling stock acceptance processes from British Rail to the present day
- Explain the current rolling stock acceptance processes for each type of railway system
- Explain the roles and responsibilities of the organisations involved
- Explain the techniques and methodologies used to analyse vehicle system safety
- Identify and explain the types and function of the principal documents relating to rolling stock acceptance

Locations & Dates 2015

 13 May 2015
21 October 2015

Prices **Member** £400 + VAT
Non-member £450 + VAT

 C and E

1 DAY COURSE**TRAIN CONTROL
AND SAFETY SYSTEMS**

In-depth introduction to UK systems for safety and train operational control.

Demonstrating your understanding of safety and being able to participate in projects that deal with control and safety systems are vital skills for both experienced and aspiring railway engineers.

This course introduces not just the systems themselves but also common terminology eg DSD, AWS, DRA, ATC, ATP, TPWS, OTDR.

KEY OUTCOMES

- Describe cab design requirements and be aware of typical cab layouts, cab controls and gauges
- Understand how trains are controlled
- Explain the purpose and operation of key train safety systems and interfaces
- Describe onboard data recording and monitoring systems of modern fleets and driver

Locations & Dates 2015

12 May 2015
20 October 2015

Prices

Member
£400 + VAT
Non-member
£450 + VAT



A, B and E

1 DAY COURSE**TRAIN COMMUNICATION AND
AUXILIARY SYSTEMS**

Exploring new and existing systems in use on today's rolling stock fleet.

Train communication systems are a current hot topic for UK rail fleets and provide many opportunities for career progression. Engineers must be able to demonstrate an understanding of current systems such as TDM, FDM PWM, in-cab radio including GSM-R and other specific equipment and understand their effect on train operations.

Participants at this workshop will become familiar with typical auxiliary train systems in both mechanical and electrical fields, including auxiliary power, air systems and other new technologies found on today's rail vehicles.

KEY OUTCOMES

- Describe the various train communications systems, modes of operation, interface, failure modes and options for degraded working
- Describe how auxiliary train systems operate, their main components and track interfaces
- Demonstrate awareness of the rules governing the operation of trains with defective equipment

Locations & Dates 2015

26 March 2015
8 October 2015

Prices

Member
£400 + VAT
Non-member
£450 + VAT



A, B and E

1 DAY COURSE**TRAIN STRUCTURAL INTEGRITY**

Examining principles of structural integrity, fire and crash-worthiness systems found on today's rail fleets.

Gaining an understanding of the methods, techniques and tools used within the structural integrity and fire systems areas of rail vehicle speciality is essential for those looking to develop their broad knowledge and skills as a rail vehicle engineer. This one-day course approaches structural integrity with a focus on design and maintenance of rail vehicles.

Using practical examples and case studies from both modern and historical fleets, participants will compare performance, changes and improvements in standards.

KEY OUTCOMES

- Recognise different types and causes of structural failure
- Understand the basic principles and design standards for mitigating against fatigue problems and proof load strength
- Describe the basic principles of structural crash-worthiness, occupant protection and relevant design features on a train
- Apply design and verification methods for structural integrity (fatigue, proof and energy absorption)
- Describe current practice in non-destructive testing regimes for safety-critical components and their maintenance cycles
- Understand the essential requirements of fire-worthiness standards for rolling stock and the common causes of train fires

Locations & Dates 2015

16 April 2015
15 October 2015

Prices

Member
£400 + VAT
Non-member
£450 + VAT



A, B and E

If you cannot see the programme you would like, please contact us to see if we can create a tailored programme or run a dedicated session.

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

5 DAY COURSE**INTRODUCTION TO RAILWAY
SIGNALLING TECHNOLOGIES**

An overview of railway control systems, subsystems and technologies used on UK mainline and metro railways.

The range of railway signalling and control systems found on Britain's mainline and metro rail networks is diverse.

Increasingly, today's engineers are expected to have broad knowledge of systems across this entire range.

This course gives you detailed technical insight across the full system range in a positive learning environment.

PROGRAMME OVERVIEW

Day 1: Engineering principles – safety and reliability requirements, and common components

Day 2: Systems for train control – movement authority, optimisation and protection systems

Day 3: Systems for train detection – key interfaces and mechanisms

Day 4: Systems for point operation – mechanism types and control logic

Day 5: Operational principles and systems – telecommunications and track circuit block principles

KEY OUTCOMES

- Demonstrate an understanding of how subsystems contribute to system function in a manner which is safe and meets customer needs
- Demonstrate an understanding of the detailed characteristics of the various subsystems
- Specify requirements for signalling systems and subsystems
- Identify potential failure modes of subsystems and components and common mitigations

Locations & Dates 2015

18-22 May 2015
23-27 November 2014/5

Prices

Member
£1,500 + VAT
Non-member
£2,000 + VAT



A, B and E

CHALLENGE US TO FIND THE RIGHT TRAINING FOR YOUR BUSINESS

We offer a range of training designed to meet the needs of mechanical engineers, whatever level of experience and knowledge.

It could be a need for bespoke solutions around niche topics and themes, or that you need to train your teams in different locations around the world.

While we strive to tailor our programmes to the needs of our members, we want to hear from you on the training challenges you have.

Our in-company training can put you in control of what gets covered, how and where.

So whatever the challenge, we want to hear from you.

Email training@imeche.org or call our team on 020 7304 6907 to speak with one of our team.

Easy ways to book:

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

PRODUCT LIFECYCLE

Proactively managing your product range is vitally important to the success of your business.

As an engineer in a research, development or design role you will need to read your market to understand the correct time to develop and launch new products and when to withdraw existing products from the market – and you’ll need to do this whilst supporting your current customers by continuing to provide high quality, reliable products.

This suite has been designed to support engineers managing the product process from invention to aftermarket. By focusing on the lifecycle, engineers will design high quality products that are ready for manufacture.

IF YOU CANNOT SEE THE PROGRAMME YOU WOULD LIKE, PLEASE CONTACT US AS WE ALSO OFFER TAILORED PROGRAMMES AND DEDICATED SESSIONS

PRODUCT LIFECYCLE

- 70 LEAN OVERVIEW
- 71 LEAN PRACTITIONER
- 72 DESIGN FOR SIX SIGMA
- 73 SIX SIGMA YELLOW BELT
- 74 ENGINEERING FOR SERVICE AND SUPPORT
- 75 DESIGN FOR MANUFACTURABILITY
- 75 COMMERCIALISING INNOVATION
- 76 NEW PRODUCT INTRODUCTION

SECTION KEY:

-  London
-  Bristol
-  Glasgow
-  Aberdeen
-  Coventry
-  Manchester
-  Competences

1 DAY COURSE

LEAN OVERVIEW

A must-have skill for process improvement.

Lean is a philosophy and a proven long-term approach that aligns everything in the organisation to the delivery of increased customer value. This practical and engaging course will give you a solid understanding of Lean, enabling you to identify opportunities and confidently apply basic tools to improve processes and key metrics.

It provides a foundation for further development in Lean at both practitioner and leader levels, to design and improve products and processes to world-class standards.

KEY OUTCOMES

- Understand the fundamentals of Lean
- Recognise best practice deployment of Lean
- Identify opportunities for applying Lean and improving performance of key metrics in your and others' areas
- Apply key tools for understanding and improving processes to deliver maximum value for customers and shareholders
- Set up and manage Kaizen events in a team-based environment to deliver quick wins
- Recognise best practice methods for problem solving and process improvement
- Plan the next step of your Lean Six Sigma learning journey

RELATED COURSES

- Design for Six Sigma (p72)

Locations & Dates 2015

 17 February 2015
19 October 2015

Prices

Member
£499 + VAT
Non-member
£599 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF

 A, B and E

UNDERSTAND LEAN. THINK LEAN. WORK LEAN.

NEW 3 DAY COURSE

LEAN PRACTITIONER

The principles of Lean are recognised the world over as the most powerful and effective way to build and sustain continuously improving organisations.

Lean focuses on orientating people and systems to deliver a continuous stream of value to the customer, eliminating waste and deficiencies in the process.

This course has been designed to help engineers to understand what they need to do in order to build and lead a Lean organisation.

AFTER THE COURSE YOU WILL BE ABLE TO:

- Understand Lean principles, concepts and key tools
- Develop the foundations of a Lean transformation for their organisation
- Build upon these foundations to create a strong Lean Culture
- Lead a Lean organisation to deliver continuous improvement and growth

RELATED COURSES

- Communication and influencing skills (p12)
- Managing time (p16)
- Negotiation skills (p47)
- Six Sigma Yellow Belt (p73)
- 21st Century TRIZ (p87)

Locations & Dates 2015

 7-9 April 2015
27-29 October 2015

Prices

Member
£1,395 + VAT
Non-member
£1,595 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF

 A, B and C

If you cannot see the programme you would like, please contact us to see if we can create a tailored programme or run a dedicated session.

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

1 DAY COURSE

DESIGN FOR SIX SIGMA

Confidently deliver any design project with key principles applicable across all engineering and manufacturing sectors.

Six Sigma is a data driven approach that is centred on the implementation of a disciplined set of quality management methods and is often supported by the development of skilled Six Sigma experts within an organisation who understand and can implement these methods.

This practical and engaging course will give you a solid understanding of Design for Six Sigma methods, enabling you to apply best practice tools and confidently deliver any design project.

It provides a foundation for further development in Six Sigma at all levels up to Master Black Belt and also complements the Lean overview course.

KEY OUTCOMES

- Understand the fundamentals of Six Sigma
- Recognise best practice deployment of Six Sigma
- Select and scope a meaningful and manageable Design for Six Sigma project
- Apply the Design for Six Sigma methodology to deliver robust, defect-free products and processes
- Use key tools for understanding and satisfying the voice of the customer
- Set up and manage Design for Six Sigma projects in a team-based environment
- Plan the next step of your Lean Six Sigma learning journey

RELATED COURSES

- Lean overview (p70)

Locations & Dates 2015

 18 February 2015
20 October 2015

Prices

Member
£499 + VAT
Non-member
£599 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF

 C and D

NEW 3 DAY QUALIFICATION

SIX SIGMA YELLOW BELT

Six Sigma seeks to improve the quality of process outputs by identifying and eliminating the causes of errors (defects), minimising variability in the process.

Classification of the skill level of experts is mapped to Yellow Belt, Green Belt and Black Belt levels.

This Yellow Belt programme will give engineers a solid understanding of Six Sigma principles and methods, and will enable engineers to confidently apply best practice tools to improve existing products/processes and design new ones.

DURATION:

3 days + Work Based Project + Yellow Belt Assessment

Locations & Dates 2015

 4-6 March 2015
2-4 November 2015

AFTER ATTENDING THIS COURSE YOU WILL BE ABLE TO:

- Understand the fundamentals of Six Sigma and Design for Six Sigma
- Recognise best practice deployment of Six Sigma
- Select and apply appropriate Six Sigma methodologies to deliver robust, defect free products and processes
- Use the full suite of Yellow Belt tools
- Select and scope a suitable Yellow Belt project
- Set-up and manage a Yellow Belt project in a team-based environment
- Plan the next step of your Lean Six Sigma learning journey

Prices

Member
£1,395 + VAT
Non-member
£1,595 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF

Coaching support available for 3 x 1 hour sessions

 A, B and C

RELATED COURSES

- Lean practitioner (p71)
- 21st Century TRIZ (p87)

2 DAY COURSE

ENGINEERING FOR SERVICE AND SUPPORT

Make practical design improvements to support the services you provide.

Develop your awareness of the impact of product engineering decisions on your organisation's ability to support its products in the marketplace throughout its lifecycle.

Assess the impact of engineering decisions on the operation of the service supply chain – and the effectiveness of your organisation in designing for service and implementing practical changes to improve this.

The course outlines both concepts and structures to explain how the requirements for service and support differ from 'design for manufacturability', and the need to consider the full product lifecycle when making engineering decisions.

KEY OUTCOMES

- Understand how service philosophy impacts on product and supply chain design
- Evaluate how requirements change once products are only manufactured for service or spares demand
- Specify requirements for managing product end-of-life
- How to influence customer behaviour positively
- Assess the risks of poor end-of-life management

Locations & Dates 2015

-  22-23 June 2015
-  3-4 December 2015

Prices

- Member**
£995 + VAT
- Non-member**
£1,215 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF

-  A, B and E

1 DAY COURSE

DESIGN FOR MANUFACTURABILITY

Design better products, aligned to the operational requirements of your organisation.

Enabling engineers to appreciate the impact of design on all aspects of an end-to-end supply chain, the course combines traditional views on design for manufacture, service and test with broader principles of lean, responsive supply chain design. Addressing how we can best establish productive, collaborative relationships, you will examine how design decisions impact the supply of high-quality, competitive products.

After attending, you will be able to implement practical, relevant improvements to product designs that are more aligned to your organisation's operational requirements.

KEY OUTCOMES

- Appreciate the impact of design on the cost and quality of the end product, as well as flexibility of the service to market
- Understand design for manufacture, design for test and design for service principles
- Explore how to engage other business functions in the design process, and the impact on speed and cost to market

-  B and C

Locations & Dates 2015

-  27 May 2015
-  17 November 2015
-  24 March 2015
-  1 October 2015

Prices

- Member**
£499 + VAT
- Non-member**
£599 + VAT

2 DAY COURSE

COMMERCIALISING INNOVATION

Improve your innovation potential with this comprehensive course.

Designed to improve an organisation's processes and culture for bringing innovative new products to market, this course gives you the tools to assess the state of innovation within your organisation and implement practical changes to improve innovation potential.

This course examines the factors necessary for innovation to flourish, and the requisite processes to realise ideas in a commercially successful manner.

KEY OUTCOMES

- Understand what forms innovation in products, services and processes
- Evaluate the characteristics required to be able to exploit innovations commercially
- Identify the building blocks of a robust innovation process, from ideas to implementation
- Assess the state of innovation within your own organisation
- Create an action plan to improve innovation in your organisation

-  A and B

Locations & Dates 2015

-  26-27 February 2015
-  26-27 October 2015
-  23-24 April 2015
-  1-2 December 2015

Prices

- Member**
£995 + VAT
- Non-member**
£1,215 + VAT

2 DAY COURSE

NEW PRODUCT INTRODUCTION

Establish a robust process for bringing new products to market.

Intended for engineers involved at any stage of the process of bringing new products to market. Using case study examples, you will examine where the process can go wrong and the implications of failing to meet customers' expectations.

Upon completion, you will be equipped to implement practical improvements that are relevant to your organisation to bring new products to market on time, at cost and to the required quality standard.

The course outlines both the concepts and structures needed for successful new product introduction, together with the need to establish productive, collaborative relationships between all of the functions involved.

KEY OUTCOMES

- Review the current status of the New Product Introduction (NPI) process in your organisation
- Appreciate the reasons why projects go wrong and apply those to your company's situation
- Explain the main steps in any NPI process and the keys to success
- Create simple structures to track progress, manage risk, highlight issues and take action
- Identify and undertake some immediate improvement actions
- Create a structure and an implementation plan for improving the NPI process in your organisation
- Act as an ambassador for a better way of working in your organisation

Locations & Dates 2015



28-29 May 2015
18-19 November 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF



B, C and D

RELATED COURSES

- Innovation and problem solving skills (p15)
- Research and development project management (p52)
- 21st Century TRIZ (p87)

FREE TRAINING WEBINARS

As part of our service to members, engineers and professionals in technical industries worldwide, the Institution host a series of free training webinars.

The webinar schedule includes technical and leadership and management topics, providing a taster to the programmes we run during the year.

Topics have included ethical principles, building your influencing skills and strategies, innovative problem solving with TRIZ and inspirational leadership.

Book your place

www.imeche.org/learning-and-development/free-training-webinars

Easy ways to book:

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

ENGINEERING ESSENTIALS

The UK Engineering Specification requires all professional engineers to demonstrate their capability to provide technically sound solutions to engineering challenges.

This portfolio enables developing engineers to learn from best practice in fundamental subjects and how to communicate the information to their peers. We cover a range of methods and principles that can help ensure your engineering processes are safe, cost effective and most importantly legal.

Our essentials training suite provides practical knowledge and trains delegates in skills they will use day-to-day in an engineering organisation.

IF YOU CANNOT SEE
THE PROGRAMME
YOU WOULD LIKE,
PLEASE CONTACT
US AS WE ALSO
OFFER TAILORED
PROGRAMMES AND
DEDICATED SESSIONS

ENGINEERING ESSENTIALS

80	TOLERANCE ANALYSIS
81	CDM REGULATIONS
81	INTRODUCTION TO STANDARDS
82	ELECTRICAL PRINCIPLES
83	ELECTRICAL SCHEMATICS
84	FAULT FINDING PRINCIPLES FOR ENGINEERS
85	INTRODUCTION TO SYSTEMS ENGINEERING
87	21ST CENTURY TRIZ
88	NON-DESTRUCTIVE TESTING INTRODUCTION
90	PRINCIPLES OF COMMISSIONING
91	PRINCIPLES OF MECHANICAL ENGINEERING
92	TECHNICAL REPORT WRITING
93	PREPARING ENGINEERING SPECIFICATIONS
94	GEOMETRIC DIMENSIONING AND TOLERANCING

SECTION KEY:

 London	 Bristol	 Glasgow
 Aberdeen	 Coventry	 Manchester
 Competences		

1 DAY COURSE

TOLERANCE ANALYSIS

Ensure design engineers can identify and prioritise critical tolerances.

Variations will always be present in any manufactured product and an accumulation of these small variations can have a devastating effect on a company's profitability and reputation.

The analysis of tolerance stack-ups (or chain) is an essential component of good product design.

While there is no official standard covering the analysis of tolerances, this course recommends an approach which can be adopted by design engineers in a variety of scenarios. It gives the design engineer the means to identify and prioritise the critical tolerances that govern the fit, form and function whilst striking an effective balance between the use of cost and time.

KEY OUTCOMES

- Demonstrate a clear understanding of the role and purpose of dimensioning and tolerancing
- Produce a detailed analysis of any tolerance chain
- Define upper and lower specification limits that satisfy the requirements of fit, form and function
- Identify potential risks created by out-of-spec components
- Show which dimensions have the most significant effect and hence need the most control
- Review specifications and perform detailed checking
- Present clear options on how to optimise any tolerance chain

RELATED COURSES

- Geometric dimensioning and tolerancing (p94)

Locations & Dates 2015



10 February 2015
14 July 2015
10 November 2015

Prices

Member
£499 + VAT
Non-member
£599 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**



B and E



VERY GOOD, EXCELLENT KNOWLEDGE OF THE SUBJECT AND PROVIDED A VERY GOOD FOUNDING TO TAKE BACK AND ROLL OUT.

MARK WILSON

RANDOX LABORATORIES

2 DAY COURSE

CDM REGULATIONS

A comprehensive review of the CDM regulations and their practical implementation.

If you are involved in the procurement, planning, design or implementation of construction and demolition work, including building maintenance, it is important that you have an understanding of construction design and safety legislation.

KEY OUTCOMES

- Understand the ethos of the CDM regulations
- Review of general health and safety responsibilities under HASAWA and how this fits with CDM
- Overview of duty holders
- Inter-relationships between duty holders
- Pre-construction information
- Construction phase plans
- The health and safety file
- Overview of contractor procurement and management
- Understand health and safety performance

RELATED COURSES

- Electrical principles (p82)

Locations & Dates 2015



3 March 2015
6 October 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**



C and E

2 DAY COURSE

INTRODUCTION TO STANDARDS

An introduction to ISO 9001, ISO 14001 and BS OHSAS 18001.

This course provides the fundamental grounding for engineers in terms of their organisation's requirements in relation to ISO 9001 (quality management), ISO 14001 (environmental management systems) and BS OHSAS 18001 (occupational health and safety).

KEY OUTCOMES

- Describe the structure of each standard
- Explain the benefits to be gained from implementing each standard and how they can be used to drive improvement in an organisation
- Act competently in response to questions about certification and the content of standards
- Relate effectively to external certification bodies in respect of the three standards
- Construct an outline plan for implementation of the standards in your organisation

Locations & Dates 2015



10 March 2015
13 October 2015

Prices

Member
£499 + VAT
Non-member
£599 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**



E

1 DAY COURSE

ELECTRICAL PRINCIPLES

Providing an understanding of electrical engineering as required by industry.

This course will provide you with an appreciation of electrical engineering principles and the ability to interact effectively with colleagues regarding electrical issues.

Within the course you will have the opportunity to analyse basic electrical components and their features and benefits.

You will also gain an understanding of your responsibilities under the Electricity at Work regulations.

KEY OUTCOMES

- Understand the basic concepts of electrical engineering
- Appreciate your responsibilities under current health and safety legislation
- Understand the terminology used in electrical engineering
- Appreciate the dangers and safety procedures associated with electrical engineering
- Effectively converse on electrical topics with electrical personnel
- Develop an understanding of electrical systems in your work environment

Locations & Dates 2015

24 June 2015
18 November 2015



18 March 2015
23 September 2015

Prices

Member
£499 + VAT
Non-member
£599 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**



B and E

Receive £100 off when you book Electrical Principles and Schematics together

1 DAY COURSE

ELECTRICAL SCHEMATICS

Develop your knowledge and become more confident with electrical symbols and diagrams.

Using practical examples and techniques, this course enables you to develop your understanding of electrical schematics.

Building on the strong foundation of knowledge from 'Electrical principles for engineers', this course focuses on increasing knowledge of electrical diagrams in your own work environment and provides you with a full understanding of basic concepts of electrical engineering.

KEY OUTCOMES

- Interpret basic block diagrams, layout diagrams and electrical drawings
- Identify key symbols used in typical electrical engineering diagrams
- Identify selected components and understand how they function within that particular circuit
- Understand the techniques used in the layout of a typical set of electrical drawings

RELATED COURSES

- Electrical principles for engineers (p82)

Locations & Dates 2015

25 June 2015
19 November 2015



19 March 2015
24 September 2015

Prices

Member
£499 + VAT
Non-member
£599 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**



C and E

If you cannot see the programme you would like, please contact us to see if we can create a tailored programme or run a dedicated session.

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

2 DAY COURSE

FAULT FINDING TECHNIQUES

How to detect and rectify faults in any system, effectively, efficiently and safely.

Being able to identify faults and rectify them is key to organisations that provide systems to other businesses. Organisations are often judged not only by the reliability of their systems but their ability to respond effectively when failure occurs. It is a source of sustainable competitive advantage both operationally and commercially.

This course has been designed for engineers and technicians who require a better understanding of the methodologies that can be applied to fault finding, regardless of system type. It introduces a range of skills and techniques that facilitate fault location and diagnosis.

Effective fault finding requires more than just an understanding of technology. It is a state of mind. This course is designed for engineers and technicians with a basic understanding of their chosen technology, who require support with developing a logical strategy to effect a diagnosis and repair.

KEY OUTCOMES

- Feel confident in dealing with the unknown when approaching a faulty system
- Have an appreciation of the different fault finding strategies available
- Understand which strategies to apply in which situations
- Be confident in your approach to completing a repair effectively, efficiently and economically
- Gain an understanding of the common fault types
- Learn how to adopt a methodical approach and its importance in successful fault resolution

Locations & Dates 2015

 17-18 June 2015
7-8 October 2015

Prices

Member
£995 + VAT

Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

 B, C and E



**GREAT COURSE, VERY USEFUL - USED
INDUSTRY EXAMPLES AND GREAT PRACTICAL
APPLICATION.**

GAVIN WILLIAMS

VEOLIA

1 DAY COURSE

INTRODUCTION TO SYSTEMS
ENGINEERING

Understand the principles of systems engineering.

The course will outline the principles of systems engineering, their scope and application, in order to provide you with sufficient knowledge to decide whether to pursue the approach further. It also reviews the standards applicable as well as the key organisations involved in the discipline.

KEY OUTCOMES

- Define systems engineering
- Understand the systems engineering approach and scope
- Identify key systems engineering models and have a basic understanding of them
- Assess the applicability of the methodology to an engineering programme
- Recognise the importance and role of stakeholders throughout the approach
- Analyse the potential benefits of the approach when applied to an engineering project
- Appreciate the cost element of systems engineering

Locations & Dates 2015

 29-30 April 2015
29-30 October 2015

Prices

Member
£995 + VAT

Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

 A, B, C and E

If you cannot see the programme you would like, please contact us to see if we can create a tailored programme or run a dedicated session.

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

CHALLENGE US TO FIND THE RIGHT TRAINING FOR YOUR BUSINESS

We offer a range of training designed to meet the needs of mechanical engineers, whatever level of experience and knowledge.

While we strive to tailor our programmes to the needs of our members, we want to hear from you on the training challenges you have.

It could be a need for bespoke solutions around niche topics and themes, or that you need to train your teams in different locations around the world.

Our in-company training can put you in control of what gets covered, how and where.

So whatever the challenge, we want to hear from you.

Email training@imeche.org or call our team on 020 7304 6907 to speak with one of our team.

NEW COURSE

1 DAY COURSE

21ST CENTURY TRIZ

TRIZ is a proven capability for defining and solving engineering, IT and management problems.

TRIZ will generate new ideas and evolve technical systems more quickly, cheaply and inventively. Its principal tools enable engineers to uncover the most effective routes to practical solutions, as well as the development of next generation of products.

This one day workshop is built around the main TRIZ tools and a programme of supporting research that distils the findings from over 4 million case study analyses. The huge TRIZ toolkit helps engineers to define better problems by bringing clarity to complex situations, and then enables the generation of solutions to such problems in a reliable and repeatable manner.

Participants will learn how to apply these tools to systematically generate innovative solutions. The workshop involves several hands-on exercises and gives participants the experience to apply them back in their workplace.

WORKSHOP OBJECTIVES

- Understand the counter-intuitive nature of innovative problem solving
- Define better problems
- Bring clarity to fuzzy, ill-defined, complex situations
- Solve difficult problems by uncovering and resolving contradictions
- Accurately anticipate future problems and solutions using the TRIZ Trends of Technical Evolution
- Access the world's biggest repository of breakthrough solutions
- Generate bulletproof, patentable solutions
- Make better use of existing resources
- Build greater confidence in ability to generate innovative solutions
- Solve problems faster

RELATED COURSES

- R&D project management (p52)

Locations & Dates 2015



2 June 2015
4 November 2015

Prices

Member
£499 + VAT
Non-member
£599 + VAT

BOOK 2 MONTHS EARLY TO RECEIVE 10% OFF



A, B, C and E

1 DAY COURSE**NON-DESTRUCTIVE TESTING:
AN INTRODUCTION**

Learn the basics of NDT techniques, certification and what NDT offers your business

An ideal introduction to the concepts of non-destructive testing (NDT) for engineers, auditors, managers, quality personnel and newcomers.

The one day course includes an introduction to NDT history, certification, advantages and limitations of the main methods including visual testing, penetrant testing, magnetic particle testing, radiographic testing, ultrasonic testing, NDT reliability and the future.

KEY OUTCOMES

- Explain the varying certification schemes for NDT personnel
- Explain the basic physics and mechanics behind basic NDT methods including:
 - Visual testing (VT)
 - Penetrant testing (PT)
 - Magnetic particle inspection (MT)
 - Ultrasonic testing (UT)
 - Radiographic testing (RT)
- Explain the advantages and disadvantages of the above NDT techniques
- Understand the type of flaws that can be detected by the above NDT techniques

Locations & Dates 2015

25 June 2015
26 November 2015



12 March 2015
28 September 2015

Prices

Member
£499 + VAT
Non-member
£599 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**



A, B and E

NDT AND INSPECTION TRAINING, EXAMINATIONS AND CONSULTANCY

Institution of
**MECHANICAL
ENGINEERS**

Argyll-Ruane Ltd Learning & Development

Argyll-Ruane Ltd is a global leader in providing high quality services for engineers and businesses in need of training, examinations and consultation in non-destructive testing and inspection.

Our experienced trainers deliver superior courses, year-round, at a competitive price. We also have expert Level 3 consultants to advise individuals and businesses.

Contact us today to discover how we can help you with your non-destructive testing and inspection needs.

T +44 (0)17 0956 0459
F +44 (0)17 0955 7705
E arl@imeche.org

www.imeche.org/arl

Training

We are a leading global training provider for:

- NDT
- Weld inspection
- Coating inspection
- Insulation
- Quality assurance

We also offer in-house, bespoke, NDT and inspection training.

Examinations

We provide examinations so that you can attain certification in:

- PCN
- ICorr
- ANT-TC-1A (ASNT)
- EN 4179
- NAS-410

We have a global network of test centres, ensuring you receive your certification when and where you need it.

Level III Services

We provide a range of Level 3 Services to organisations, including:

- Consultation
- Auditing
- Written practice
- Procedure writing
- Training and certification

1 DAY COURSE**PRINCIPLES OF COMMISSIONING****A practical guide to the commissioning process.**

Learn proven strategies for commissioning. This course addresses commissioning from both process and practical perspectives, drawing on real-life experience and established good working practice.

The programme explores the fundamental principles of commissioning: including pre and post-commissioning documentation needs and their importance, practical commissioning strategies and applications.

Through the use of case studies and group exercises, exploring the key concepts of commissioning, you will be able to apply your learning in practical settings.

KEY OUTCOMES

- Understand the need for commissioning
- Learn the definition of commissioning
- Learn the primary commissioning activities
- Learn about pre-commissioning activities including FAT and SAT
- Learn the definitions and distinctions of inspections and testing
- Review a typical hierarchy diagram of typical commissioning documentation
- Learn practical considerations for specific applications
- Know the elements required to plan a commissioning activity
- Apply principles for assigning rigorous and practical system acceptance criteria post commissioning

Locations & Dates 2015

25 March 2015
7 July 2015
9 December 2015

Prices

Member
£499 + VAT
Non-member
£599 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**



B, C, D and E

2 DAY COURSE**PRINCIPLES OF MECHANICAL ENGINEERING****Develop your core knowledge of mechanical engineering.**

This two-day course is designed to provide non-mechanical engineers and scientists with an introduction to some of the main subject areas of professional mechanical engineering. The focus is predominantly on the topics not usually included in other engineering and physical science disciplines and aims to develop core mechanical knowledge.

Developing an understanding of mechanical engineering in two days can only scratch the surface of the subjects, however this course will give guidance on where to go for more detailed and specialised information. This course is non-technical in nature and is a must for those working with engineers.

All participants will receive a copy of the Institution's data book.

TOPICS COVERED

- An overview of mechanical engineering and how it relates to other engineering disciplines
- How mechanical engineering has developed
- Mechanical engineering design: process and principles
- Drawing conventions, tolerances and fits
- The fundamental mechanical sciences: solid mechanics, fluid dynamics, thermodynamics, strength of materials
- Common simulation and analysis techniques
- Cross-disciplinary projects and relevance to industry

KEY OUTCOMES

- Have a clear understanding of the latest capabilities of mechanical engineering
- Be able to contribute more effectively to mechanical projects
- Communicate more effectively with mechanical engineers

Locations & Dates 2015

10-11 March 2015
4-5 August 2015



27-28 May 2015
9-10 December 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**

**IDEAL FOR NON MECHANICAL ENGINEERS
TO PROVIDE AN UNDERSTANDING OF THE
PRINCIPLES MECHANICAL ENGINEERS WORK BY.**

If you cannot see the programme you would like, please contact us to see if we can create a tailored programme or run a dedicated session.

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

1 DAY COURSE**TECHNICAL REPORT WRITING**

Write better, shorter, clearer reports, faster.

Anyone involved in technical work will quickly discover the challenges presented when trying to communicate their ideas, information, proposals or recommendations to others. All too often, the impact of many hours of work can hinge on the ability to explain the results quickly and effectively to others.

This practical, one-day course is designed to support anyone needing to create, compile, edit or manage technical documents. It presents the key principles to make the task as simple as possible, using tools and techniques to improve the quality and reduce the time needed to produce effective technical documents.

KEY OUTCOMES

- Understand how to define and meet the needs of your readers
- Design a document structure that will simplify understanding
- Identify the content and decide the layout quickly and easily
- Organise and convert your thoughts into print or on screen more effectively
- Adopt a writing style that is appropriate to your readers
- Use diagrams and other graphics to good effect
- Edit more competently and eliminate avoidable mistakes
- Manage and control your documents more efficiently

RELATED COURSES

- Preparing engineering specifications (p93)

Locations & Dates 2015

 18 March 2015
24 June 2015
3 September 2015
9 December 2015

 7 May 2015
10 November 2015

 3 February 2015
6 August 2015

 21 April 2015
15 October 2015

 26 February 2015
15 September 2015

 21 January 2015
9 July 2015

Prices

Member
£499 + VAT
Non-member
£599 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**



D



INTERACTIVE AND ENGAGING. GOOD PACE TO KEEP PEOPLE INTERESTED. KNOWLEDGEABLE TUTOR WITH GOOD EXPLANATION AND EXAMPLES APPLICABLE TO MY ROLE

EMILY HULME

JLR

2 DAY COURSE**PREPARING ENGINEERING SPECIFICATIONS**

Create higher quality specifications faster, with improved performance and better value for money.

Specifications are key to making sure that customers get the equipment, product or service they need. They are equally important in ensuring that suppliers clearly describe what they can provide. However, creating high quality specifications in limited time presents a significant challenge for most engineers.

This course emphasises the need for a clear definition of requirements, combined with the ability to communicate them effectively to third parties. A structured method of preparing specifications is provided and a range of practical techniques are presented, to help you put principles into practice. The commercial and contractual role of specifications are also addressed.

KEY OUTCOMES

- Gain a clear understanding of the role and purpose of specifications
- Present a framework for organising and producing specifications
- Define the key steps involved in creating effective specifications
- Demonstrate methods for assisting in defining requirements
- Provide tools and techniques for scoping and structuring specifications
- Show how specification 'model forms' can be developed
- Present methods to assist the writing and editing of specifications
- Review how specifications should be issued and controlled

RELATED COURSES

- Contract law and contract drafting (p48)
- Successful project management (p53)
- Technical report writing (p92)

Locations & Dates 2015

 11-12 March 2015
16-17 June 2015
11-12 November 2015

 13-14 January 2015
14-15 July 2015

 12-13 May 2015
2-3 December 2015

 11-12 February 2015
9-10 September 2015

Prices

Member
£995 + VAT
Non-member
£1,215 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**



B, D and E



I FOUND THE COURSE COMPREHENSIVE AND IT PROVIDED PLENTY OF FOOD FOR THOUGHT.

PAUL BENNETT

ASSURANCE ENGINEERS

NEW 3 DAY COURSE

GEOMETRIC DIMENSIONING AND TOLERANCING

A concurrent engineering team equipped with the proper tools has the ability to shorten time to market, reduce engineering changes and create a robust quality design

Design decisions should be optimised for quality cost and delivery at the sketch phase when an engineering change costs a few cents rather than hundreds or thousands of dollars months later.

KEY OUTCOMES

- Translate geometric feature control frames into plain English with one clear meaning.
- Explain the major rules found in the ASME Y14.5-2009 standard.
- Explain the tolerance zones for the fourteen geometric characteristics.
- Understand the hierarchy of geometric tolerancing.
- Recognise proper application of GD&T.
- Calculate geometric tolerances and boundaries

RELATED COURSES

- Preparing engineering specifications (p93)

Locations & Dates 2015



9-11 June 2015
8-10 December 2015

Prices

Member
£1,395 + VAT
Non-member
£1,595 + VAT

**BOOK 2 MONTHS EARLY
TO RECEIVE 10% OFF**



A, B, C and E

SAVE MONEY WITH US YOUR LEARNING PASS

WANT THE BEST VALUE TRAINING?

SAVE UP TO 33% WITH A LEARNING PASS

The most cost effective way to purchase training

- Quicker administration processes
- Can be used across your organisation and is not limited to individuals
- Can be used with any combination of one or two day programmes

For a fixed fee of £4,000* (plus VAT), attend 10 days training through any combination of programmes from our training calendar.

PLEASE QUOTE PASS15 AT TIME OF BOOKING

FIND OUT MORE:

T: +44(0)207 304 6907

E: training@imeche.org

W: www.imeche.org/learning

If you cannot see the programme you would like, please contact us to see if we can create a tailored programme or run a dedicated session.

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

*excludes qualification programmes

PROFESSIONAL REGISTRATION

DO YOU KNOW HOW MUCH THE INSTITUTION OF MECHANICAL ENGINEERS CAN MAKE A DIFFERENCE TO YOUR BUSINESS?

Today the Institution of Mechanical Engineers is one of the fastest growing professional engineering institutions. Headquartered in London we have operations around the world and over 105,000 members in more than 140 countries working at the heart of one of the most important and dynamic industries.

How we can help your business

- Conferences and seminars to help promote best practice amongst employees
- Access to One Birdcage Walk, London where you can hold meetings and events in our Business Centre

How we can help your employees

- One of the largest engineering knowledge centres in the world, with extensive online and offline resources
- Scholarships and awards worth over £400,000 every year
- Industry events with the opportunity to network and stay on top of the latest thinking

Get in touch with your business development manager

To find out more about professional registration and the other benefits that the Institution of Mechanical Engineers can bring to your business, get in touch with our Business Development team.

Call: +44 (0)20 7304 6970

Email: bdm@imeche.org

Visit: www.imeche.org/engineeringexcellence

BENEFITS OF MEMBERSHIP

Do you believe engineering excellence requires excellent engineers? **We do.**

The best way for your business to be sure it has the capacity to meet customer demand and achieve excellence in engineering is to benchmark employee progress against the independent, industry-recognised standard of professional registration. With benefits for your business and your engineers, it ensures their development and allows them to achieve new standards of excellence in their work.

The Institution of Mechanical Engineers sets the gold standard for professional registration.

Professional registration can help your business:

- Attract and retain the best engineers at all levels of experience, who look for professional registration to benchmark their skill sets
- Gain a competitive advantage in contract bidding and tender processes by demonstrating credibility and reliability
- Manage risk effectively on a global stage by demonstrating globally-accepted standards of excellence
- Be confident in your workforce, knowing it has been independently assessed by industry peers

Professional registration can help your employees:

- Benchmark their skills against a global standard
- Improve job satisfaction and ensure their ongoing development
- Ensure workplace recognition of their experience
- Achieve greater job security
- Become more transferable at home and abroad with an internationally-recognised qualification.

BENEFITS OF MEMBERSHIP

Do you know how to professionally develop your engineers? With our support it's easy.

- Business Development Managers (BDMs) – a free support for you and your engineers as they undergo professional registration. Your personal BDM can run workshops and provide individual feedback regarding applications
- Company Based Registration (CBR) – a structured programme that makes it easier for your business to manage professional registration. Groups of employees can come together in workshops and feedback sessions for guidance throughout the process, with interviews on site
- Monitored Professional Development Scheme (MPDS) – the Institution accredits your company's training scheme to ensure that the right opportunities are in place for successful IEng and CEng applications – a key step towards creating a culture of registration
- Supported Registration Scheme (SRS) – for organisations where an accredited MPDS is not in place, it provides a disciplined and regular reporting framework aligned to the five Engineering Council UK-SPEC competence areas
- EngTech – our approved scheme for accrediting the competence of your technicians, so they can become professionally registered
- Events – your engineers can keep up-to-date with the latest research and best practice from industry and academia with our comprehensive programme of seminars, conferences, workshops and lectures

Get in touch with your business development manager

To find out more about professional registration and the other benefits that the Institution of Mechanical Engineers can bring to your business, get in touch with our Business Development team.

Call: +44 (0)20 7304 6970
Email: bdm@imeche.org
Visit: www.imeche.org/engineeringexcellence

UK-SPEC

The UK Standard for Professional Engineering Competence (UK-SPEC) is published by the Engineering Council on behalf of the UK engineering profession.

UK-SPEC describes the value of becoming registered as an Engineering Technician (EngTech), Incorporated Engineer (IEng) or Chartered Engineer (CEng) and the requirements that have to be met in order to become professionally registered. It also provides examples of how to achieve this. Individuals may progress from EngTech to IEng and from IEng to CEng through a process of life-long learning and career development. Evidence of competence is the key requirement for progression, and often there will be a need for additional education and training to enable competence to be recognised.

The Institution's courses have been mapped to UK-SPEC.

Each course indicates which of the UK-SPEC competences it covers. Course attendance may contribute to an engineer's portfolio of competence to demonstrate Initial Professional Development (IPD): a key component of the requirement for registration as a Chartered or Incorporated Engineer.

A	B	C	D	E*	COMPETENCE
Use a combination of general and specialist engineering knowledge and understanding to optimise the application of existing and emerging technology	Apply appropriate theoretical and practical methods to the analysis and solution of mechanical engineering problems				CHARTERED ENGINEERS
Use a combination of general and specialist mechanical engineering knowledge and understanding to apply existing and emerging technology	Apply appropriate theoretical and practical methods to design, develop, manufacture, construct, commission, operate, maintain, decommission and recycle mechanical engineering processes, systems, services and products	Provide technical and commercial leadership	Demonstrate effective inter-personal skills	Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment	INCORPORATED ENGINEERS

*Competence descriptions are correct at the time of publication.

UK-SPEC

HOW OUR COURSES ARE MAPPED AGAINST UK-SPEC

	A	B	C	D	E
LEADING SELF					
Applying ethical principles		✓	✓	✓	✓
Presentation skills				✓	✓
Coaching fundamentals			✓	✓	✓
Communication and influencing skills				✓	✓
Customer service excellence				✓	✓
Innovation and problem solving skills	✓	✓	✓		
Managing time			✓	✓	
LEADING THE TEAM					
Mentoring skills			✓	✓	✓
New engineering manager			✓	✓	✓
Leadership practice			✓	✓	✓
Performance management and appraisal skills			✓	✓	
Senior engineering manager	✓	✓	✓	✓	✓
Operational risk management	✓	✓	✓	✓	✓
International management			✓	✓	
LEADING THE BUSINESS					
Business skills for graduate engineers			✓	✓	✓
Business continuity and resilience			✓		✓
APM introductory certificate in project management			✓	✓	
APMP			✓		✓
Commercial risk awareness for engineers			✓	✓	✓
Consultative selling skills			✓	✓	
Contract law and contract drafting			✓	✓	✓
Negotiation skills			✓	✓	✓
Introduction to cost estimating		✓	✓		
Managing smaller engineering projects		✓	✓		
Research and development project management	✓	✓	✓		
Financial management			✓		✓
Winning bids and tenders			✓		✓
Successful project management			✓	✓	
Commercial skills			✓	✓	✓
Understanding intellectual property for engineers	✓	✓			

UK-SPEC

	A	B	C	D	E
RAILWAY					
Introduction to rolling stock	✓				
Fleet maintenance – Introduction			✓		
Fleet maintenance - Advanced	✓	✓			✓
Traction and braking	✓	✓			
Vehicle dynamics and vehicle track interaction	✓				
Vehicle acceptance and approvals			✓		✓
Train control and safety systems	✓	✓			✓
Train communication and auxiliary systems	✓	✓			✓
Introduction to railway signalling technologies	✓	✓			✓
Train structural integrity	✓	✓			✓
PRODUCT LIFECYCLE					
Commercialising innovation	✓	✓			
Design for manufacturability		✓	✓		
New product introduction		✓	✓	✓	
Engineering for service and support	✓	✓			✓
Lean overview	✓	✓			✓
Lean practitioner	✓	✓	✓		✓
Design for Six Sigma			✓	✓	
Six Sigma Yellow Belt	✓	✓	✓		
ENGINEERING ESSENTIALS					
Technical report writing				✓	
Preparing engineering specifications		✓		✓	✓
Electrical principles		✓			✓
CDM regulations			✓		✓
Introduction to systems engineering	✓	✓	✓		✓
Introduction to standards					✓
Fault finding techniques		✓	✓		✓
Electrical schematics	✓				✓
Principles of commissioning		✓	✓	✓	✓
21st century TRIZ	✓	✓	✓		✓
Tolerance analysis		✓			✓
Non-destructive testing: an introduction	✓	✓			✓
Geometric dimensioning and tolerancing	✓	✓	✓		✓

The remaining courses are not mapped to UK-SPEC, but still contribute to CPD.

- CMI Level 5 Diploma in Leadership and Management
- Mentoring for MPDS
- Principles of mechanical engineering

COURSE BOOKING FORM

Institution of
**MECHANICAL
ENGINEERS**

COURSE AND DELEGATE INFORMATION

Course name _____
Course date _____
Location _____
Delegate name _____
Membership number _____
Delegate email (Mandatory) _____
Delegate contact number _____
Job title _____

PAYMENT OPTIONS – CREDIT CARD or PURCHASE ORDER

CREDIT CARD – please note we do not accept American Express

Name on card _____
16 digit card number _____
Card expiry date _____
Security code (three digits) _____
Do you require a VAT receipt Yes No

PURCHASE ORDER/ INVOICE (please attach a copy of the PO)

Purchase order number _____
Invoice contact name _____
Invoice address _____
Accounts contact details (name and phone) _____

FEE

Please indicate the expected fee below.

* Early bird fee is available where the date is more than two months away

* Member rate is only acceptable with a valid member number

Fee _____
Special offer code _____

Upon submission of this completed form you are agreeing to our Terms & Conditions.

Please complete the relevant sections and return by email to **training@imeche.org** or by post to

**Learning & Development, Institution of Mechanical Engineers,
One Birdcage Walk, London, SW1H 9JJ.**

T: +44(0)207 304 6907 E: training@imeche.org W: www.imeche.org/learning

IMechE Training and Professional Development

Company Registered in England No: 1103638 VAT Registered no GB 299 930493



**TO BOOK A COURSE GO TO WWW.IMECHE.ORG/TRAINING
EMAIL TRAINING@IMECHE.ORG OR TELEPHONE +44 (0)20 7304 6907**

Learning and Development

One Birdcage Walk
Westminster
London
SW1H 9JJ
UK

T +44 (0)20 7304 6907
training@imeche.org
www.imeche.org/training