UNICOURSE

Bridging Maths for Engineers

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UniCourse was founded back in March 2014 to service the needs of employers and learners in developing flexible higher level qualifications. We are a fully-approved ILM and Edexcel centre offering courses in Leadership and Management, Business and Engineering as well as having partnerships with many blue chip companies, such as; SSE, Centrica, Transport for London and National Grid.

We have a ground-breaking learning model, providing flexibility in the areas where traditional colleges have rigidity. Our teachers all possess an honours degree as a minimum, many with a master's degree and significant industrial experience. They are recruited after demonstrating a passion for effective and flexible distance learning, using the latest technology.

Quality is key, so we have rigorous controls on the internal verification of our teaching, learning and assessment instruments. Our latest Moodle virtual learning environment is the perfect platform for all new learning technologies to co-exist, fostering efficient learning for our clients.

We are proudly headquartered in the heart of the busy commercial district of Liverpool, UK, a dynamic city region with three universities and a rich learning culture. Great Britain has a great future if we equip our workforce with higher level skills.

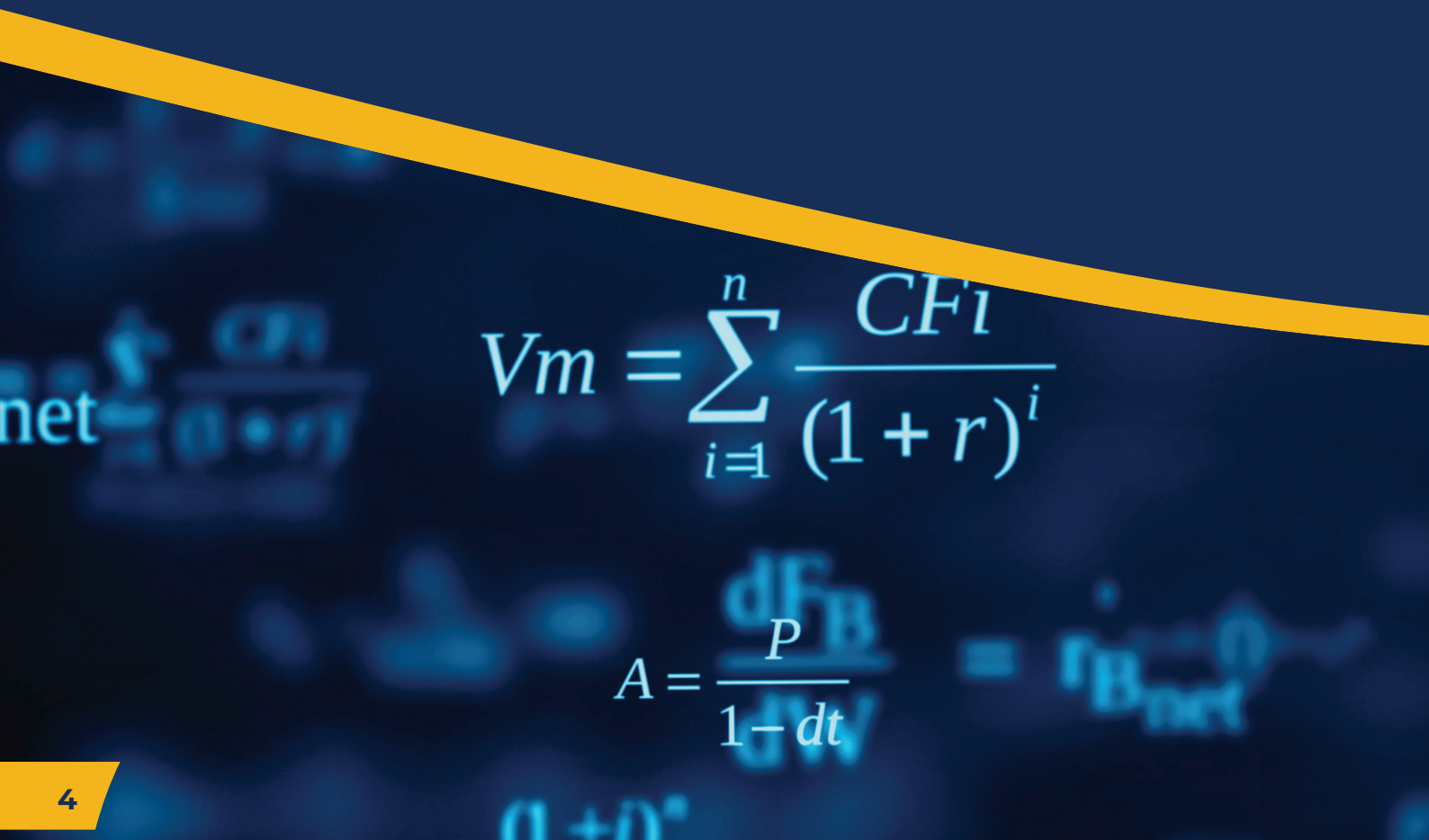
Mike Lopez BEng(Hons) MSc PGCert CertEd MIET MIFL FHEA
Principal and Chief Executive

Bridging Maths for Engineers

The Maths Bridging Course is suitable for anyone considering registration on to a HNC/D engineering course, or the first year of an engineering/science university degree programme (both start at Level 4). Prior to undertaking such studies, it is vital that students have a strong foundation in mathematics, up to and including Level 3.

What is the format of the Maths Bridging course?

The course is highly interactive and is accessed via a link to our Moodle virtual learning environment, and renders perfectly on a smartphone, tablet or laptop. Simply login with your email and password, then you will see a host of interactive sections, each containing essential topics, theory, worked examples and 'Test Your Knowledge' questions/answers. Each topic area contains interactive quizzes and exercises to cement your knowledge and build your confidence. Topics are also supported by video tutorials produced by the UniCourse engineering team.

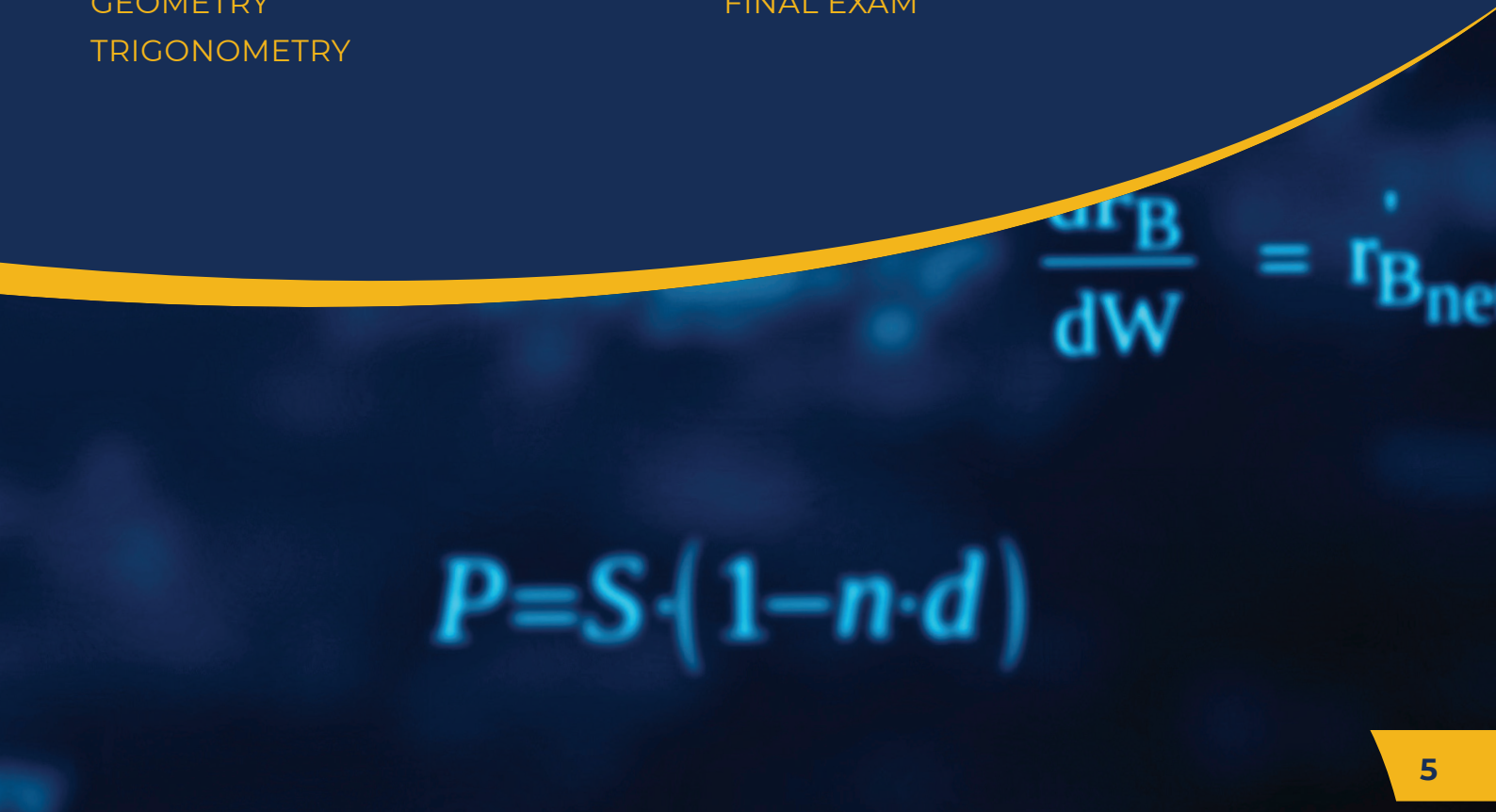


How will this Maths Bridging Course Benefit me?

- Initial induction with a senior Maths tutor
- Live Maths tutors available 7-days a week (8am to 7.30pm)
- Expert video-tutorials to complement the learning materials
- Will significantly up-skill electricians and technicians for career advancement
- All the Maths knowledge you need for an HNC/D or degree entry
- Provides confidence for those planning an engineering/science career
- All learning resources are online and on mobile app
- Students communicate together in dedicated Chat rooms and Forums
- Course builds knowledge in sections (programmed learning)
- Interactive online assessments of your understanding
- Go back and re-learn mode
- Check Your Knowledge questions – with answers
- Interactive Further Problems to enhance your understanding
- Graded online final exam (multiple choice – computer graded)
- Final chat with senior Maths tutor to assess/discuss your progression
- 50% pass mark on exam (university is 40%). Should you pass then you will be offered a place on one of our engineering HNC/D engineering programmes with a £100 credit.

What are the topics covered in the Maths Bridging Course?

FUNDAMENTALS
ALGEBRA
SI UNITS
GRAPHS AND CHARTS
GEOMETRY
TRIGONOMETRY
STATISTICS
PROBABILITY
ELEMENTARY CALCULUS
DIMENSIONAL ANALYSIS
FINAL EXAM



Topic List

1 Fundamentals

- Mathematical Symbols and Letters
- Positive and Negative Numbers
- Precedence
- Percentages and Decimals
- Fractions
- Ratio
- Scale
- Proportion
- Sequences
- Long Multiplication and Division
- Decimal Places
- Significant Figures
- Factors and Multiples
- Roots
- Standard Form

2 Algebra

- Transposition
- Brackets
- Indices
- Logarithms
- Simultaneous Equations

3 SI Units

- Base Units
- Derived Units
- Prefixes
- Unit Conversions

4 Graphs and Charts

- Straight Line Graphs
- Charts

5 Geometry

- Dimensions
- Pythagoras

6 Trigonometry

- Sine Ratio
- Cosine Ratio
- Tangent Ratio
- Sine Rule
- Cosine Rule
- Circular Measurement
- Radians
- Arc Lengths

7/8 Statistics/Probability

- Data
- Frequency Distribution
- Tally Chart
- Data Presentation
- Data Analysis
- Mean
- Median
- Mode
- Variance
- Standard Deviation
- **Dependent/Independent Events**

9 Elementary Calculus

- Differentiation
- Integration

10 Dimensional Analysis

- Purpose
- Basic Dimensions
- Common Quantities
- Proof of Formulae
- Formulae Development

11 Final Exam (Interactive)

All topics will cover the following:

- Check Your Knowledge questions
- Further Problems (Interactive)
- Answers to Check Your
- Knowledge questions
- Answers to Further Problems (Interactive)

If you think this course is for you, you can apply now via our website

APPLY NOW

Committed to Quality.

ILM and Edexcel Accredited Centre for International Professional Development Training Services

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