

UCL MSc Systems Engineering Management Reading Lists

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The reading material below is designed to broaden your outlook and provide different perspectives on themes that are most relevant to the course. Delegates are not expected to purchase textbooks or materials before the start of the course.

During the course, recommended reading material is normally provided or will be available in the UCL Library or an associated university library

<http://www.ucl.ac.uk/library/>

At each module, delegates may be provided with a more specific reading list pertaining to the to each module. Delegates will be notified in advance of any specific pre-reading for particular modules.

General reading list

Books here are applicable to all core modules.

Blanchard, B. S. and W. J. Fabrycky, Systems Engineering and Analysis, Prentice Hall, Upper Saddle River NJ, 2006, ISBN: 0131869779

Boardman, J., Systems Engineering - An Introduction, Prentice Hall, 1990

Checkland, P., Systems Thinking, Systems Practice, Wiley, 1999, ISBN 0-471-98606-2

Eisner, H., Essentials of Projects and Systems Engineering Management, Wiley, 2002, ISBN 0-471-03195-X

Hitchins, D. K., Putting systems to work, Wiley, 1992, ISBN 0-471-93426-7

Reilly, N. B., Successful Systems Engineering for Engineers and Managers, Chapman and Hall, 1993, ISBN 0-442-01586-0

Sage, A., Systems Engineering, Wiley, 1992, ISBN 0-471-53639-3

Stevens, R. et al., Systems Engineering – Coping with Complexity, Prentice Hall, London, 1998, ISBN 0-13-095085-8

Core Modules

Systems Engineering Management

C. H. Kepner, C. H. and B. B. Tregoe, *The New Rational Manager*, Princeton Research Press, Princeton NJ, 1997

O'Neil, W., *Military and Political Leaders and Success*, McGraw Hill, 2004, ISBN 0071440593

Gaston, S. J., *Buying the Right System at the Right Price*, Wiley, ISBN 0-471-17022-4 (out of print, search for second hand copies on internet - abebooks .com)

Integrity

Fortune, J., Peters, G., *Learning from Failure – The Systems Approach*, Wiley, 1995, ISBN 0-471-94420-3

Perrow, C., *Normal Accidents*, Basic Books, 1999, ISBN 0-465-05142-1

Selected Optional Modules

Business Environment

J. Tidd, J. Bessant and K. Pavitt, *Managing innovation*, Wiley, 2005, ISBN: 0470093269

K. van der Heijden, *Scenarios: The art of strategic conversation*, Wiley, 1996, ISBN: 0471966398

J. Kay, *Foundations of corporate success: how business strategies add value*, Oxford University Press, 1995, ISBN: 019828988X

R. A. Brealey, S. C. Myers and F. Allen, *Corporate Finance*, 8th Edition, McGraw Hill International Ed., Boston MA, 2006, ISBN: 007111551X

Design

T. Kelly, *The Art of Innovation: Lessons in creativity from IDEO*, America's leading design firm, Currency/Doubleday, New York, 2000, ISBN: 0385499841

N. P. Suh, *Axiomatic Design*, Oxford University Press, 2001, ISBN: 0195134664

See also Blanchard & Fabrycky and Kepner & Tregoe which are on the general list.

Modelling

J. Holt, UML for Systems Engineering: Watching the Wheels, IEE, London, 2004, ISBN: 0863413544

J. Rumbaugh, I. Jacobson and G. Booch, The Unified Modeling Language Reference Manual, 2nd Edition, Addison Wesley, Boston MA, 2004, ISBN: 0321245628

M. Pidd, Tools for Thinking: Modelling in Management Science, 2nd Edition, Wiley, Chichester, 2003, ISBN: 0470847956

Y. Y. Haimes, Risk Modeling, Assessment and Management, 2nd Edition, Wiley, Hoboken NJ, 2004, ISBN: 0471480487

Project Management

Burke, R., Project Management and Control Techniques, Wiley, 2003, ISBN: 0-470-85124-4

Forsberg, K., Mooz, H., & Cotterman, H., Visualizing project management (2 ed.), Wiley, 2000, ISBN 0-471-35760-x

Meredith, J., Mantel, S., Project Management – A Managerial Approach, Wiley, 2003, ISBN 0471073237

Requirements

To learn what requirements are really about, read this classic text by Gause and Weinberg. The module will give you a more formal process and principles, but no-one has given a better account of the real-world issues.

Exploring Requirements: Quality Before Design; Donald C. Gause and Gerald M. Weinberg; Hardcover 299 pages (1989); Dorset House Publishing Co., Inc.; ISBN: 0-932633-13-7

To get an overview of the topics studied on the course and some more recent work in the area, read this useful introduction by two requirements engineering researchers:

Nuseibeh, B. and Easterbrook, S., "Requirements engineering: a roadmap", *Proceedings of the conference on The future of Software engineering*, pp.35-46, 2000, ACM Press, 2000.