

READING LIST 2022-2023

MASTER ENGINEERING SYSTEMS



LAPTOP REQUIREMENTS

The laptop specifications are as follows:

Processor	Intel Core i5 (or higher) or comparable
RAM memory	16 GB or more
Storage	512 GB or more, preferably with SSD or a combination SSD/HDD
Network	WiFi & Wired LAN
Multimedia	Webcam* (possibly integrated), microphone and loudspeakers
Operating system	Microsoft Windows 10

You have a Macbook

It's OK to use a Macbook, as long as it can run Windows 10 (e.g. using a dual-boot or in a virtual machine).

TIP: student software licenses

Student software licenses for Microsoft Windows and Microsoft Office can be purchased inexpensively for HAN students via www.surfspot.nl.

*You need a WEBCAM and microphone to participate in online lessons and exams.

ALL MODULES (Minor Project)

Compulsory literature:

Grit, Roel. *Project Management, A Practical Approach*, (4e druk) Noordhoff Uitgevers, ISBN 9789001790929

Elling, Rien & Andeweg, Bas. *Report Writing for readers with little time*, Noordhoff Uitgevers, ISBN 9789001812591

MODULE SYSTEMS MODELLING

Compulsory literature:

Norman S. Nise, Control Systems Engineering, 8th edition (EMEA edition), Wiley, ISBN 978-1-119-59013-2 (The global edition or 7th edition can also be used)

Kreyszig, Erwin, (2011). *Advanced Engineering Mathematics* (10th edition) International Student Version). Wiley.

Hibbeler, R.C. *Engineering Mechanics: Dynamics SI Edition* (14th Edition). Pearson, ISBN 9781292088723.

Hanington, B. & Martin B. *Universal Methods of Design*, Rockport Publishers Inc.

Grit, Roel. *Project Management, A Practical Approach*, (4e druk) Noordhoff Uitgevers, ISBN 9789001790929

Elling, Rien & Andeweg, Bas. *Report Writing for readers with little time*, Noordhoff Uitgevers, ISBN 9789001812591

Reader Introduction Dynamics, E. Tazelaar et al, HAN, 2016 (available at HAN)

Reader System Modelling, Data Regression and System Identification

Lecture notes, P. van Kan, HAN 2018

Lecturing material and hand-outs available on Onderwijs Online

Recommended literature:

Van den Akker, H. & Mudde, R.F. *Transport Phenomena, The art of Balancing*, Delft Academic Press, ISBN 9789065623584

MODULE APPLIED CONTROL

Compulsory literature:

Nise N.S., Control Systems Engineering, John Wiley & Sons

Lecturing material and hand-outs/manuals available on OnderwijsOnline

Handouts

Specific articles about control structures

Recommended literature:

Scientific papers

MODULE ADVANCED CONTROLLER DESIGN

Compulsory literature:

To be decided during class, depending on the subject. Lecturing material (readers, papers and handouts) will be made available on Onderwijs Online

To be decided during class, depending on the subject.

Recommended literature:

To be decided during class, depending on the subject.

MODULE ADVANCED VEHICLE DYNAMICS

Compulsory literature:

Lecturing material and hand-outs, available on OnderwijsOnline

Recommended literature:

Joop P. Pauwelussen, Essentials of Vehicle Dynamics, 2014, Butterworth-Heinemann, ISBN: 9780081000366

R.J. Jagacinski, J.M. Flach.: *Control Theory for Humans*, ISBN nr. 0805822925

V. Cossalter.: *Motorcycle Dynamics*, 2nd edition (2006), ISBN nr. 978 – 1 – 4303 – 0861 – 4

P.Sweatman (ed.): *PBS Explained, Performance Based Standards for Road Transport Vehicles*, report Australian Road Transport Suppliers Association (2003)

http://www.artsa.com.au/assets/library/PBS_Explained_Sept_03.pdf

Alessandro Genta and Giancarlo Genta, *Road Vehicle Dynamics, Fundamentals of Modeling and Simulation*, 2016, World Scientific, ISBN 9814713430, 9789814713436

MODULE BIG DATA & SMALL DATA

Compulsory literature:

Coursera course: Machine learning (Andrew NG)

Scientific papers

MODULE DISTRIBUTED SYSTEMS

Compulsory literature:

Kopetz, H. (2011). *Real-time systems: design principles for distributed embedded applications*, Springer Science & Business Media

Lecturing materials and hand-outs on OnderwijsOnline

To be decided during class, depending on the subject.

Recommended literature:

Pfeiffer, O., Ayre, A., & Keydel, C. (2016). *Embedded networking with CAN and CANopen*. Copperhill Media.

Tanenbaum, A. S., & Van Steen, M. (2007). *Distributed systems: principles and paradigms*. Prentice-Hall.

<https://www.distributed-systems.net/index.php/books/distributed-systems-3rd-edition-2017/>

To be decided during class, depending on the subject.

MODULE Hydrogen Technology

Compulsory literature:

Fuel Cell Handbook / 7th Edition 2004

Atkins, P. and Jones, L., *Chemical Principles: The Quest for Insight*, W. H. Freeman.

Lecturing materials and hand-outs on Onderwijs Online

Handouts and papers

Recommended literature:

MODULE Innovation in Powertrains

Compulsory literature:

Mehrdad Ehsani, Yimin Gao, Ali Emadi, *Modern Electric, Hybrid Electric, and Fuel Cell Vehicles*, Third edition, ISBN 9781138330498

Lecturing materials and hand-outs on OnderwijsOnline

Recommended literature:

Lino Guzzella, Antonio Sciarretta, *Vehicle Propulsion systems*, Third edition, Print ISBN 9783642359125 and online ISBN 9783642359132

MODULE PROCESS DEVELOPMENT

Compulsory literature:

Operations Management, Nigel Slack, Alistair Brandon-Jones and Robert Johnston, 9e editie (2019). Another Textbook on Operations Management, which also focuses on master level, is fine. In the module, references will be made to this particular text book.

The Lean Six Sigma Pocket Toolbook” van Michael L. George, David Rowlands, Mark Price en John Maxey. ISBN 978-0-07-144119-3

Learning to See – Value Stream Mapping to Create Value and eliminate Muda, van Mike Rother and John Shook, ISBN/EAN 9780966784305 (available on #OO)

The Lean Toolbox, John Bicheno, 5th edition, ISBN 9780956830753

Reader Applied Manufacturing Management: papers + sheets used in the classes.

To be decided during class, depending on the subject.

Recommended literature:

To be decided during class, depending on the subject.

MODULE SUSTAINABLE ENERGY SYSTEMS

Compulsory literature:

Renewable Energy in Power Systems, 2nd Edition 2020 Author: D. Infield, L. Freris, Publisher Wiley, ISBN: 978-1-118-64993-0

Handouts and papers

MODULE SUSTAINABLE FUEL, ENGINES AND EMISSIONS

Compulsory literature:

Heywood, Internal Combustion Engines Fundamentals 2E, ISBN 978-1260116106

Lecturing materials and hand-outs on Onderwijs Online

Recommended literature:

Ghazi A. Karim, Dual- fuel DIESEL ENGINES (2015) CRC Press

MODULE SMART INFRASTRUCTURE

Compulsory literature:

Lecturing materials and hand-outs on Onderwijs Online.

MODULE SMART POWER SUPPLY

Compulsory literature:

Lecture notes (to be distributed during the lectures) and scientific papers

R. Ross, Reliability Analysis for Asset Management of Electric Power Grids, John Wiley, (eBook: ISBN: 978-1-119-12519-8; hard copy: ISBN: 978-1-119-12517-4)

reader Material analysis (free pdf)

To be announced

Recommended literature:

Antonio J. Conejo; Luis Baringo, Power System Operations, Springer, ISBN:978-3-319-69406-1, 978-3-319-69407-8

IAM: Asset Management – an anatomy (pdf – can be downloaded)

To be announced

MODULE SMART VEHICLES

Compulsory literature:

Lecturing material (readers, papers and handouts) will be made available on Onderwijs Online.
To be decided during class, depending on the subject.

Recommended literature:

To be decided during class, depending on the subject.

MAJOR PROJECT

Compulsory literature:

Lecturing material, papers and hand-outs (Power Point, on Onderwijs Online),

Report Writing for readers with little time' van Noordhoff Uitgevers, ISBN 978-90-01-81259-1

Manual Major Project Master Engineering Systems