READING LIST 2026-2027
MASTER ENGINEERING SYSTEMS

LAPTOP REQUIREMENTS

The laptop specifications are as follows:

Processor	Intel Core i5 (modern >12th gen) but preferably i7 or higher
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 meetings.

MODULE SYSTEMS MODELLING

Compulsory literature:

- Erwin Kreyszig, Advanced Engineering Mathematics, 10th edition, International Student Version (2011)
- Engineering Mechanics: Dynamics SI Edition, R.C. Hibbeler, 14th Edition, Pearson, ISBN 9781292088723
- Nise N.S., Control Systems Engineering, John Wiley & Sons (ONLINE Zybooks)
- Reader Introduction Dynamics, E. Tazelaar et al, HAN, 2016
- Lecturing material and hand-outs, available on the digital learning environment
- Reader System Modelling, Data Regression and System Identification
- Lecture notes, P. van Kan, HAN 2018

Recommended literature:

- Transport Phenomena, The art of Balancing H. vd Akker, R.F. Mudde, Delft Academic Press, ISBN 9789065623584

MODULE APPLIED CONTROL

Compulsory literature:

- Nise N.S., Control Systems Engineering, John Wiley & Sons (ONLINE Zybooks)
- Handouts / Manuals
- Specific articles about control structures
- Lecturing material and hand-outs available on the digital learning environment

Recommended literature:

- Scientific papers

MODULE ADVANCED VEHICLE DYNAMICS

Compulsory literature:

- Joop P. Pauwelussen, Essentials of Vehicle Dynamics, 2014, Butterworth-Heinemann, ISBN: 9780081000366
- Readers, book chapters, papers and lecturing material and hand-outs, all available on the digital learning environment

Recommended literature:

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

MODULE APPLIED MACHINE LEARNING

Compulsory literature:

- Coursera course: Machine learning (Andrew NG)
- Scientific papers

Recommended literature:

- Not applicable

MODULE EMBEDDED CONTROL

Compulsory literature:

- Kopetz, H. (2022). Real-Time Systems: Design Principles for Distributed Embedded Applications. 3rd edition, Springer.
- Khalil, H.K. (2015). Nonlinear Control. Pearson Education, (Global edition) ISBN 1292060697
- Readers, book chapters, papers, online (video) tutorials, lecturing material, and hand-outs, to be distributed using the digital learning platform.
- To be decided during class, depending on the subject.

Recommended literature:

- Van Steen, M. & Tanenbaum, A.S. (2017). Distributed Systems: Principles and Paradigms. Prentice-Hall.
- Kreyszig, E. (2011). Advanced Engineering Mathematics. Wiley.
- To be decided during class, depending on the subject.

MODULE HYDROGEN TECHNOLOGY

Compulsory literature:

- Fuel Cell Handbook / 5th Edition 2010
- Atkins, P. and Jones, L., Chemical Principles: The Quest for Insight, W. H. Freeman.
- Lecturing materials and hand-outs on the digital learning environment
- Handouts and papers

Recommended literature:

- Not applicable

MODULE INNOVATIONS 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 the digital learning environment

Recommended literature:

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

MODULE INTELLIGENT AUTOMOTIVE SYSTEMS

Compulsory literature:

- Lecturing material (readers, papers and handouts) will be made available on the digital learning environment.
- To be decided during class, depending on the subject.

Recommended literature:

- To be decided during class, depending on the subject.

MODULE RELIABLE ELECTRICITY HUBS

Compulsory literature:

- Slides and handouts

Recommended literature:

- Antonio J. Conejo; Luis Baringo, Power System Operations, Springer, ISBN:978-3-319-69406-1, 978-3-319-69407-8
- David Infield, Leon Freris, Renewable Energy in Power Systems, 2nd 2020, ISBN-13 : 978-1118649930

ALL MODULES (Minor Project)

Compulsory literature:

- Hanington. B, Martin. B (2012), Universal Methods of Design, Rockport Publishers Inc. 2012
- Grit. R. (2021). Project Management, a Practical Approach. Noordhoff Uitgevers, ISBN 9789001790929.
- Elling. R., et. al. (2011). Report Writing for Readers with Little Time. Noordhoff Uitgevers, ISBN 9789001812591
- Baarda. D.B. (2010). Research this is it! Noordhoff
- https://www.youtube.com/@GradCoach play list: https://www.youtube.com/playlist?list=PLvcb33xNTVUk-Bj4Y9iuU0n46LowYtjb5

MAJOR PROJECT

Compulsory literature:

- Lecturing material, papers and hand-outs (Power Point, on the digital learning environment).
- Manual Major Project Master Engineering Systems
- Grit. R. (2021). *Project Management, a Practical Approach*. Noordhoff Uitgevers, ISBN 9789001790929.
- Elling. R., et. al. (2011). *Report Writing for Readers with Little Time*. Noordhoff Uitgevers, ISBN 9789001812591
- Baarda. D.B. (2010). Research this is it! Noordhoff
- https://www.youtube.com/@GradCoach play list: https://www.youtube.com/playlist?list=PLvcb33xNTVUk-Bj4Y9iuU0n46LowYtjb5