

Literature recommendation for 1st semester MSNE **mandatory modules**:

**@ME60003: Neuro-Anatomy and Physiology**

Recommended:

Principles of Neural Science (McGraw Hill, 5th ed.) von Kandel, Schwartz Jessell et. al.

Optional/Additional:

Alberts Bray Hopkins et al., Essential Cell Biology, Garland Science, NYC and London (*Primer*)

S. Gilman, S. Newman, Clinical Neuroanatomy and Neurophysiology (2002), F.A.Davis, ISBN-13: 978-0803607729

**@EI60007: Statistics and Probability Theory**

Lectures on Probability Theory and Mathematical Statistics, 3rd Edition, Marco Taboga

Practical Statistics for Data Scientists, Peter Bruce, Andrew Bruce, and Peter Gedeck

**@EI60002: Mixed Signal Electronics in Neuroengineering**

Horowitz & Hill: The Art of Electronics, ISBN 0-521-37095-7 (*Primer*)

D. Johnston & S.M. Wu: Foundations of Cellular Neurophysiology

N. Aryan, Stimulation and Recording Electrodes for Neural Prostheses (2014), Springer, ISBN 978-3319100517

H. Rong, Multichannel Neural Recording for Implantable Neuroprosthetics (2011), LAP Lambert, ISBN 978-3844398946

**@EI6004: Computational Neuroscience**

Dayan & Abbott. Theoretical Neuroscience. MIT Press, 2005.

Wulfram Gerstner, Werner M. Kistler, Richard Naud and Liam Paninski. From Single Neurons to Networks and Models of Cognition. Cambridge Univ. Press, Cambridge, 2014

Literature recommendation for 1st semester **makeup module** (if required and mentor-assigned in MSNE learning agreement)

**@EI60022: Fundamentals of Mathematics for Neuroengineering**

Linear Algebra and Its Applications, by Gilbert Strang. Academic Press, 1980.

Theoretical Neuroscience, by Peter Dayan and Larry Abbot (Chapters 1-3)

Pattern Recognition and Machine Learning, by Christopher Bishop (Chapters 1-3).