

**08-Nuc-A1 Introduction to Nuclear Physics and Nuclear Engineering**

LaMarsh, J.R. and Baralta, “Introduction to Nuclear Engineering”, 3rd Edition”, Prentice-Hall

**08-Nuc-A3 Nuclear Reactor Design**

El Wakil, M.M., Nuclear Energy Conversion, American Nuclear Society, 1992, Third Printing- Chapters 1 to 12, ISBN: 0-89448-015-4

J.R. Lamarsh and A.J. Baratta, Introduction to Nuclear Engineering, Third Edition, Prentice Hall, 2001, Chapter 8, ISBN\_ 0-201-82498-1

Donald R. Olander, Fundamental Aspects of Nuclear Reactor Fuel Elements, US Department of Energy, Washington DC, 1976, TID-26711-P1 (Out of Print, possibly available at Georgia Tech Bookstore)

**For reactor materials:** J.T.A. Roberts, Structural Materials in Nuclear Power Systems, Plenum Press, N.Y. (1981)

Glasstone and Sesonke, Nuclear Reactor Engineering, 4th Edition, Chapman & Hall, 1994

Tong and Weisman, Thermal Analysis of Pressurized Water Reactors, American Nuclear Society, 1979

Lahey and Moody, The Thermal-Hydraulics of a Boiling Water Nuclear Reactor, American Nuclear Society, 1977

Todreas and Kazimi, Nuclear Systems, Vol. 1, Hemisphere Publishing, 1990

**08-Nuc-A5 Nuclear Detection and Instrumentation**

J. P. Holman, Experimental Methods for Engineers, 8th Edition, ISBN-10: 0073529303  
ISBN-13: 978-0073529301

Also, foundation books about NPP systems, detectors, instruments will help.

**08-Nuc-A6 Nuclear Power Plant Systems and Operation**

Bereznai, G.T. in the form of a course pack that contains interactive CD, text and simulation. It is available from the McMaster and the UOIT Book stores under the title “Nuclear Power Plant Systems and Operation”.

**08-Nuc-A7 Process Dynamics and Control**

D.E. Seborg, T.F. Edgar, D.A. Mellichamp, Process Dynamics and Control. John Wiley, second edition, 2003.

T. Marlin, Process Control, Designing Processes and Control Systems for Dynamic Performance, second edition. McGraw-Hill, 2000.

B.W. Bequette, Process Control: Modeling, Design and Simulation. Prentice Hall, 2003.

C.A. Smith, A.B. Corripio, Principles and Practice of Automatic Process Control, John Wiley, second edition, 1997.

**08-Nuc-B1 Nuclear Shielding**

Reactor Shielding for Nuclear Engineers, by N.M. Schaeffer

**08-Nuc-B2, Radiation Protection**

Essentials of Radiation Biology and protection. ISBN 0766813304 latest edition.

**08-Nuc-B8 Applied Thermodynamics and Heat Transfer**

Moran, M.J., H.N. Shapiro, B.R. Munson and D.P. DeWitt, Introduction to Thermal Systems Engineering: Thermodynamics, Fluid Mechanics, and Heat Transfer. John Wiley and Sons, 2002.

**08-Nuc-B9 Energy Conversion and Power Generation**

Weston, K.C., Energy Conversion. West Publishing Co., 1992. (available as an online ebook at <http://onlinebooks.library.upenn.edu/webbin/book/lookupid?key=olbp33597>)

Khartchenko, Nikolai, Advanced Energy Systems. Crc Press Llc, 1998. ISBN #1560326115.

**08-Nuc-B10 Advanced Fluid Mechanics**

White, F.M., Fluid Mechanics, 6<sup>th</sup> Edition. McGraw-Hill, 2006.

**08-Nuc-B11 Power Systems and Machines**

Chapman, Stephen, Electric Machinery and Power System Fundamentals, McGraw Hill, 2001.

Wildi, Theodore, Electrical Machines, Drives, and Power Systems, 6th Edition, Prentice Hall, 2005.

**08-Nuc-B12 Power Systems Engineering**

Glover, J. Duncan, and Mulukutla Sarma, Power System Analysis and Design, 3<sup>rd</sup> Edition. Thomson Learning, 2002.

Grainger, John and William Stevenson Jr., Power System Analysis. McGraw Hill, 1994.

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