

**04-Bio-A1            Biomaterials and Biocompatibility**

Ratner, Buddy DS., Allan S. Hoffman, Frederick J. Schoen and Jack E. Lemons editors, Biomaterials Science, An Introduction to Materials in Medicine. Academic Press, NY, 1996.

**04-Bio-A2            Process Dynamics and Control**

Coughanowr and Koppel, Process Systems Analysis and Control. 2<sup>nd</sup> Edition, McGraw Hill, 1991.

Luyben, W.L. Process Modelling, Simulation and Control for Chemical Engineers. 2<sup>nd</sup> Edition, McGraw Hill, N.Y. 1991.

**04-Bio-A3            Cellular and Molecular Biology and Biochemistry**

Madigan, T., J. Martinko, and J. Parker, Brock Biology Of Microorganisms. Prentice-Hall, NJ. 2003.

**04-Bio-A4            Biomechanics**

Berger, S.A., W. Goldsmith and E.R. Lewis, Introduction to Bioengineering. Oxford University Press, 2000.

Nordin, Margareta and Victor H. Frankel, Basic Biomechanics of the Musculoskeletal System. Lippincott Williams&Wilkins, 3rd edition, 2001.

**04-Bio-A5            Enzyme and Microbial Kinetics**

Blanch, H.W., D.S. Clark and Marcel Dekker, Biochemical Engineering. 1996.

Bailey, J.E. and E.F. Ollis, Biochemical Engineering Fundamentals. 2nd edition, McGraw Hill, 1986.

**04-Bio-A6            Anatomy and Physiology**

Guyton, Arthur C. and John E. Hall, Human Physiology and Mechanisms of Disease. 6<sup>th</sup> Ed., W.B. Saunders, Philadelphia, Pa., 1997.

Moffett, David F., Stacie B. Moffett, and Charles L. Schauf; Human Physiology, 2<sup>nd</sup> Ed.; Mosby, 1993.

**04-Bio-A7            Fluid Mechanics**

Middleman, S. An Introduction to Fluid Dynamics. Wiley, 1998.

**04-Bio-A8            Biophysical Measurements**

Andrew G. Webb (2018) Principles of Biomedical Instrumentation, Cambridge University Press; 1st edition (Jan. 11 2018). ASIN: B077ZWSJDW. 289 pgs.  
Prince JL, Links JM (2014). Medical Imaging Signals and Systems, 2nd ed. Pearson publishing. ISBN-10: 0132145189. 544 pgs.

Webster, J.G. (Editor), Medical Instrumentation: Application and Design. 3<sup>rd</sup> Ed., Wiley, 1997.

**04-Bio-A9            Bioreactor Design**

Blanch, H.W., D.S. Clark and Marcel Dekker, Biochemical Engineering. 1996.

Bailey, J.E. and E.F. Ollis, Biochemical Engineering Fundamentals. 2nd edition, McGraw Hill, 1986.

Aiba, S., A.E. Humphrey and N.F. Mills, Biochemical Engineering. 2nd edition, Academic Press, 1973.

Shuler, M.L. and F. Kargi, Biochemical Engineering Basic Concepts. Prentice Hall, 1992.

**04-Bio-B1            Biochemical Separations**

Blanch, H.W., D.S. Clark and Marcel Dekker, Biochemical Engineering. 1996.

Shuler, M.L. and F. Kargi, Biochemical Engineering Basic Concepts. Prentice Hall, 1992.

**04-Bio-B2            Prostheses and Orthoses**

**04-Bio-B3            Biotransport Phenomena**

Welty, James, Charles E. Wicks, Robert E. Wilson, and Gregory L. Rorrer, Fundamentals of momentum, Heat, and Mass Transfer. 4th Ed., Wiley, 2000.

Middleman, Stanley, An Introduction to Mass and Heat Transfer: Principles of Analysis and Design. Wiley, 1997.

**04-Bio-B4            Digital Image Processing**

Gonzalez, R. and R. Woods, Digital Image Processing. 2<sup>nd</sup> Ed., Prentice Hall, 2002.

Suetens, P., Fundamentals of Medical Imaging. Cambridge University Press, 2002.

**04-Bio-B5            Cell and Tissue Engineering**

Lanza, R.P., R. Langer and W.L. Chick (eds), Principles of Tissue Engineering. 2<sup>nd</sup> edition, Academic Press, 2000.

**04-Bio-B6            Bioinstrumentation**

Webster JG and Nimunkar AJ (2020) Medical Instrumentation: Application and Design, 5th Edition. Wiley Publishing. ASIN: B0892SQL42. 911 pgs.

Webster, J.G. (Editor), Bioinstrumentation. Wiley, 2004

**04-Bio-B7            Robotics and Manufacturing Automation**

Groover, Mikell P., Automation, Production Systems, and Computer-Integrated Manufacturing (4th Edition), Prentice-Hall, ISBN-10: 0133499618

**04-Bio-B8            Rehabilitation Engineering**

Smith, Raymond V. & John H. Leslie, Rehabilitation Engineering. CRC Press, 1990.

Mann, William C. and Joseph P. Pane, Assistive Technology for Persons with Disabilities. The American Occupation Therapy Association Inc., 1991.

Webster, John G. et al, Electronic Devices for Rehabilitation. John Wiley & Sons, 1985.

**04-Bio-B9            Artificial Intelligence and Expert Systems**

Russell, S. and P. Norvig, Artificial Intelligence: A Modern Approach. 2nd Edition. Prentice Hall, 2003. ISBN: 0137903952

Luger, G., Artificial Intelligence: Structures and Strategies for Complex Problem Solving. 5<sup>th</sup> Ed., Addison Wesley, 2005.

**04-Bio-B10           Analytical Biochemistry**

Mikkelsen, Susan R. and Eduardo Corton, Bioanalytical chemistry. Wiley Interscience, 2004. ISBN: 0-471-54447-7

Holme, D.J. and H. Peck, Analytical Biochemistry. 3<sup>rd</sup> ed., Longman, 1998.

**04-Bio-B11           Ergonomics            (98-Ind-B5 Ergonomics)**

Bridger, R.S., Introduction to Ergonomics. McGraw-Hill, 1995. ISBN 0-07-007741-X.

Kodak Ergonomics Group, Ergonomic Design for People at Work, Volumes I and II. Van Nostrand Reinhold Co. Ltd., 1986.

**04-Bio-B12           Applied Optics/Photonics**

Prasad, N., Introduction to Biophotonics. Wiley, 2004.

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