Name of Dept: BME

Ser	Level	Course Code and Title	Name of Book	Name of Author	Required Qty	Rmks
1.	L-1, T-1	BME 101 Introduction to Biomedical Engineering	Introduction to Biomedical Engineering, 3rd edition	John Enderle, Joseph Bronzino	45	
2.	L-1, T-2	BME 105 Human Physiology	Human Physiology: An Integrated Approach (7th Edition)	Dee Unglaub Silverthorn	45	
3.	L-2, T-1	BME 201 Human Physiology	Essentials of Anatomy and Physiology, 8th Ed	Valerie C. Scanlon, Tina Sanders	45	
4.	L-2, T- 2	BME 205 Biofluid Mechanics and Heat Transfer	Biological and Bioenvironmental Heat and Mass Transfer: Marcel Dekker, 2002.	Ashim K. Datta	45	
5.		BME 207 Biomedical Instrumentation and Measurements	1. “Handbook of Bio-Medical Instrumentation”, 2nd Edition 2. Medical Instrumentation Application and Design, 4th Ed	1. R. S. Khandpur 2. John G. Webster	45	
6.		BME 203 Biochemistry	1. Fundamentals of Enzyme Kinetics – 4th edition. 2. Lehninger Principles of Biochemistry- 4th Edition.	1. Athel Cornish-Bowden 2. Albert L. Lehninger, David L. Nelson, and Michael M. Cox.	45	
7.	L-3, T-1	BME 303 Biomaterials	1. Biomaterials 2. Mechanics of Biomaterials: Fundamental Principles for Implant Design, 1st Edition	1. Joyce Y Wong, Joseph D Bronzino 2. Lisa A Pruitt, Ayyana M. Chakravartula	40	

Ser	Level	Course Code and Title	Name of Book	Name of Author	Required Qty	Rmks
8.		BME 305 Biomedical Signal Processing	1. Digital Signal Processing: A Practical Approach, 2nd Edition 2. Signals and Systems in Biomedical Engineering: Signal Processing and Physiological Systems Modeling, 2nd Edition	1. Emmanuel Ifeachor and Barrie Jervis 2. S. R. Devasahayam	40	
9.	L-3, T-2	BME 309 Diagnostic and Therapeutic Equipment-I	1. Handbook of Bio-Medical Instrumentation", 2nd Edition, 2.Introduction to Biomedical Equipment Technology, 4th Edition	1. R. S. Khandpur 2. Joseph J.carr and John M. Brown	40	
10.		BME 311 Embedded Systems and Interfacing	Embedded Mircrocomputer Systems: Real Time Interfacing, 2010	Onatham W. Valvano, Brookes/Colem	40	
11.		BME 313 Biomedical Image Processing	1. Digital Image Processing, Fourth Edition 2. Medical Image Analysis, Second Edition	1. Rafael C. Gonzalez and Richard E. Woods 2. Atam P. Dhawan	40	
12.		BME 315 Biomechanics	1. Susan J. Hall, Basic Biomechanics	1. McGraw Hill, Sixth Edition	40	
13.	L-4, T-1	BME 403 Molecular Biology for Engineers	1. Applied Cell and Molecular Biology for Engineers 1st Edition	1. by Gabi Nindl Waite ,Lee R. Waite, Walter X. Balcavage	40	
14.		BME 405 Motion Analysis and Rehabilitation Engineering	1.Biomechanics of the Human Body	1.Emico okuno, Luciano Fratin	40	

Ser	Level	Course Code and Title	Name of Book	Name of Author	Required Qty	Rmks
15.	L-4, T-1	BME 401 Physiological Control Systems	1. Physiological Control Systems: Analysis, Simulation, and Estimation	1. Michael C. K. Khoo	40	
16.	L-4, T-2	BME 407 Hospital Planning and Management	1. Healthcare Technology Management - A Systematic approach, 1st ed	Blackett, Paul, McCarthy, Justin	40	
			Healthcare Technology Management Systems: Towards a New Organizational Model for Health Services, 1st ed	Rossana Rivas, Luis Vilcahuaman	40	
17.		BME 409 Professional Ethics	Professional Ethics and Human Values	M. GOVINDARAJAN	40	
18.		BME 411 Virtual Bioinstrumentation	Virtual Bio-Instrumentation Biomedical, Clinical, and Healthcare Applications in LabVIEW, 2001	Olansen Jon B. and Rosow Eric	40	
19.		BME 419 Nuclear Medicine	Physics and Radiobiology of Nuclear Medicine	Gopal B. Saha	40	
			Nuclear Medicine Physics: A Handbook for Teachers and Students		40	
20.		BME 421 Bioinformatics	Understanding Bioinformatics	Jeremy Baum	40	
			An Introduction to Bioinformatics Algorithms	Neil C. Jones, Pavel A. Pevzner	40	
37.		BME 425 Applied Biofluid Mechanics	Applied Biofluid Mechanics	Lee Waite and Jerry Fine	40	
38.		BME 429 Neuroscience and Neural Engineering	Neuroscience, 3rd Edition	Dale Purves, George J. Augustine, and et.al	40	
			The Brain: An Introduction to Functional Neuroanatomy	Charles Watson, Matthew Kirkcaldie, and George Paxinos	40	

Ser	Level	Course Code and Title	Name of Book	Name of Author	Required Qty	Rmks
39.		BME 431 Biofabrication	Rapid prototyping of biomaterials: principles and applications		40	
40.		BME 435 Drug Development & Delivery Systems	Recent advances in novel drug carrier systems, 2012	Ali Demer Sezer	40	
			Introduction to medicinal chemistry, 1995	Graham L. Patrick	40	
41.		BME 437 Nanotechnology in Biomedicine	Introduction to Nanoscale Science and Technology, 2004 (UNITS I, II, III & IV)	Di Ventra, Massimiliano; Evoy, Stephane; Heflin, James R.	40	
			Biomedical Applications of Nanotechnology, 2007 (UNIT V)	Vinod Labhasetwar, Diandra L. Leslie-Pelecky	40	
42.		BME 433 Tissue Engineering	Principles of Tissue Engineering, 4th ed	Robert Lanza, Robert Langer and Joseph P Vacanti	40	
			Introduction to Tissue Engineering: Applications and Challenges (IEEE Press Series on Biomedical Engineering), 1st ed	Ravi Birla	40	
43		BME 439 Artificial Organ Development	Biomedical Engineering and Design Handbook Volume 2, 2009, 2nd ed	Myer Kutz	40	

List of Reference Books

As per Priority

Ser	Name of the Authors	Name of the Book	Required Qty	Rmks
1	Asim Kumar Datta	Essentials of Human Anatomy (Head and Neck) -Volume -1-3	1	
2	Izet M. Kapetanovic	Drug discovery and development, 2011	1	
3	Benjamin E. Blass	Basic principles of drug discovery and development, 2015, Elsevier, 1st ed	1	
4	David C. Young	Computational Drug Design: A Guide for Computational and Medicinal Chemists, 2009	1	
5	Chattopadhyay	Introduction to Nanoscience and Nanotechnology, 1st ed, 2009	1	
6	B. K. Parthasarathy	Nanoscience And Nanotechnology, 2007	1	
7	Vicki H. Grassian	Nanoscience And Nanotechnology: Environmental And Health Impacts (Hardcover - 2008), 1st ed	1	
8	T. Pradeep	Nano – The essentials, 2008	1	
9	Bhushan, Bharat (Ed.)	Springer Handbook of Nanotechnology, 2nd rev. and extended ed., 2007	1	
10	Tuan Vo-Dinh	Nanotechnology in Biology and Medicine: Methods, Devices, and Applications, 2007	1	
11	WD Callister	Materials Science and Engineering - An Introduction, 4th Edition	1	
12	L. H. Van Vlack	Elements of Materials Science and Engineering, 6th Edition	1	
13	K J Blinowska and J Zygierewicz	Practical Biomedical Signal Analysis Using MATLAB	1	
14	Robert B. Northrop	Signals and Systems in Biomedical Engineering	1	
15	Chris Guy and Dominic Ffytche	An Introduction to The Principles of Medical Imaging, Revised Edition	1	
16	B H Brown, R H Smallwood, D C Barber, P V Lawford and D R Hose	Medical Physics and Biomedical Engineering	1	

Ser	Name of the Authors	Name of the Book	Required Qty	Rmks
17	Amine Nait-Ali	Advanced Biosignal Processing	1	
18	Baxevanis, A.D., and Ouellette, B.F.F.	Bioinformatics -A Practical Guide to the Analysis of Genes and Proteins, 3rd Edition	1	
19	Mount, D.W.	Bioinformatics: Sequence and Genome Analysis, 2nd ed.	1	
20	Bishop, C.	Pattern Recognition and Machine Learning	1	
21	Dan Jurafsky and James H. Martin	Speech and Language Processing, 2019	1	
22	Paul Barry	Head First Python, 2nd Edition, 2005	1	
23	Jiri Jan	Medical Image Processing, Reconstruction and Restoration: Concept and Method	1	
24	Duane Knudson	Fundamentals of Biomechanics, Second Edition	1	
25	Donald R. Peterson and Joseph D. Bronzino	Biomechanics Principles and applications	1	
26	Yannas, I. V.	Tissue and Organ Regeneration in Adults	1	
27	Metin Akay	Handbook of Neural Engineering, 2007	1	
28	Susan J Hall	Basic Biomechanics (7th Edition)	1	
29	Elizabeth Friis	Mechanical Testing of Orthopaedic Implants	1	
30	Lisa A Pruitt; Ayyana M Chakravartul	Mechanics of biomaterials : Fundamental principles for implant design	1	
31	Yuen-Cheng Fung	Introduction to Bioengineering (Advanced Series in Biomechanics)	1	
32	Vinod Kumar Khanna	Implantable Medical Electronics: Prosthetics, Drug Delivery, and Health Monitoring	1	
33	Andreas Oechsner, Waqar Ahmed	Biomechanics of Hard Tissues: Modeling, Testing, and Materials, 1st edition, 2011	1	
34	Murat Chreli	Biomechanics of Dental Implants: Handbook of Researchers	1	
35	Chandra P. Sharma	Biointegration of Medical Implant Materials: Science and Design	1	

Ser	Name of the Authors	Name of the Book	Required Qty	Rmks
36	Mark Miller, Stephen Thompson	Miller's Review of Orthopaedics	1	
37	John O. Milewski	Additive Manufacturing of Metals: From Fundamental Technology to Rocket Nozzles, Medical Implants, and Custom Jewelry	1	
38	Robert LeMoyne	Advances for Prosthetic Technology: From Historical Perspective to Current Status to Future Application	1	
39	Dominique G. Poitout	Biomechanics and Biomaterials in Orthopedics	1	
40	Vinod Kumar Khanna	Implantable Medical Electronics: Prosthetics, Drug Delivery, and Health Monitoring	1	
41	Robert LeMoyne	Advances for Prosthetic Technology: From Historical Perspective to Current Status to Future Application	1	
42	Douglas Murphy	Fundamentals of Amputation Care and Prosthetics	1	
43	Michelle M. Lusardi PhD PT, Millee Jorge, Caroline C. Nielsen PhD	Orthotics and Prosthetics in Rehabilitation	1	
44	Chua Chee Kai, Leong Kah Fai, Lim Chu-Sing	Rapid Prototyping: Principles and Applications (2nd Edition)	1	
45	Eun Ji Chung (Editor), Lorraine Leon (Editor), Carlos Rinaldi (Editor)	Nanoparticles for Biomedical Applications: Fundamental Concepts, Biological Interactions and Clinical Applications (Micro and Nano Technologies) 1st Edition	1	
46	M. Reza Mozafari	Nanomaterials and Nanosystems for Biomedical Applications	1	
47	John R. Kirkup	A History of Limb Amputation	1	
48	Gerad J Tortora and Brayan H Derrickson	Principles of Anatomy and Physiology, 15th	1	

Ser	Name of the Authors	Name of the Book	Required Qty	Rmks
49	Ravi Birla	Introduction to Tissue Engineering	1	
50	Robert Lanza Robert Langer Joseph P Vacanti Anthony Atala	Principles of Tissue Engineering, 5th edition, 2020	1	
51	R.C. Dorf and R.H. Bishop	Modern Control Systems	1	
52	Alexander & Sadiku	Fundamentals of Electric Circuit	1	
53	Abdulhamit Subasi	Practical Guide For Biomedical Signal Analysis Using Machine Learning Techniques: A Matlab Based Approach	1	
54	B. M. Sakharkar	Principles of Hospital Administration and Planning, 2nd	1	
55	Jorge Hidalgo, Javier Pérez-Fernández, Gloria Rodríguez-Vega	Critical Care Administration: A Comprehensive Clinical Guide, 1st	1	
56	Keith J. Dreyer	PACS: A Guide to the Digital Revolution, 2nd	1	
57	C. William Hanson III	Procedures in Critical Care, 2nd	1	
58	Kathy Sierra	Head First Java	1	
59	Jan Axelson	USB CompleteThe Developer's Guide, Fifth	1	
60	Paula Gomes	Medical robotics: Minimally invasive surgery, 1st	1	
61	Sandy Watson, Kenneth A. Gorski	Invasive Cardiology: A Manual For Cath Lab Personnel, 3rd	1	
62	Denial J. Goldstein, MD Mehmet C. Oz	Minimally Invasive Cardiac Surgery, 2nd	1	
63	Cinnamone Vanputte, Jennifer Regan, Andrew Russo	Seeley’s Essentials of Anatomy and physiology, 9th Ed, 2016	1	
64	Nigam, A & Ayyagari, A.	Lab Manual in Biochemistry, Immunology, and Biotechnology, 2008	1	

Ser	Name of the Authors	Name of the Book	Required Qty	Rmks
65	Boyer, RF.	Biochemistry Laboratory: Modern Theory and Techniques, 2nd Edition, 2011,	1	
66	Young, Munson, and Okiishi	A Brief Introduction to Fluid Mechanics, 5th Edition, 2011	1	
67	Leslie Cromwell	Biomedical Instrumentation and Measurement, 1st edition, 2007	1	
68	R.C. Dorf and R.H. Bishop	Modern Control Systems, 12th Edition, 2011.	1	
69	Gary Jonson	Labview Graphical Programming, Fourth edition 2006	1	
70	Kevin James	PC Interfacing and Data Acquisition: Techniques for Measurement, Instrumentation and Control, Newness, 2000	1	
71	Prasad N. Prasad	Introduction to Biophotonics, 2nd	1	
72	Markolf H. Niemz	Laser-Tissue Interaction Fundamentals and Applications, 2007	1	
73	Abraham Katzir	Lasers and Optical Fibers in Medicine, 2nd Edition, 2012	1	
74	E.B. Podgorsak	Radiation Oncology Physics: A Handbook for Teachers and Students, 2005	1	
75	Faiz M. Khan, John P. Gibbons	The Physics of Radiation Therapy, 5th Edition, 2014	1	