

BS-Book List Updating AY21/22 S1

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BS8101	DEEP, BIOLOGICALLY
SP00056	WORKINGS OF THE HUMAN BODY

BS1001 INTRODUCTORY BIOLOGY

Subject Coordinator: Dr Peter Cheung

Prescribed Textbook

Sylvia S. Mader, *Biology*, 12th Edition, McGraw-Hill, 2015. (Call no: QH308.2.M181b 2016)

Johnson, George, *Essentials of The Living World*, 4th Edition, McGraw-Hill 2013. (QH308.2.J67 2013)

BS1002 BIOPHYSICAL CHEMISTRY

Subject Coordinator: Assoc Prof Mu Yuguang

Prescribed Textbook

Ignacio Tinoco, Jr. and co-authors, *Physical Chemistry Principles and Applications in Biological Sciences*: 5th Edition (Call no: QH345.P578 2014)

References

Nicholas C. Price, *Principles and problems in physical chemistry for biochemists*, 3rd Edition, Oxford University Press, 2001. (Call no: QD415.P957)

Christopher K. Mathews, *Biochemistry*, 4th Edition, Pearson, 2013. (QD415.M429 2013)

BS1003 ORGANIC CHEMISTRY

Subject Coordinator: Prof Zhao Yanli / Assoc Prof Liu Chuan Fa

Prescribed Textbook

McMurry – Asia EBook Organic Chemistry 9E (2016) ISBN: 9788000005201

References

Organic Chemistry (Fifth Edition) 5th Edition
by Maitland Jones Jr. (Author), Steven A. Fleming (Author)
Publisher: W. W. Norton & Company; 5 edition (February 1, 2014)

Language: English

ISBN-10: 0393913031

ISBN-13: 978-0393913033

T. W. Graham. Solomons, *Organic chemistry*, 11th Edition, Wiley, 2014. (QD253.2.S689 2014)

John McMurry, *Fundamentals of organic chemistry*, 7th International Edition, Brooks/Cole, 2011. (QD251.2.M168 2011)

Paula Yurkanis Bruice, *Organic chemistry*, 7th International Edition, Prentice Hall, 2014. (QD251.3.B896 2014)

Introductory Texts

Robert Charles Atkins, *Organic chemistry: a brief course*, 3rd International Edition, McGraw-Hill, 2007. (Call no: QD253.2.A874 2007)

T. W. Graham Solomons, *Fundamentals of organic chemistry*, 5th Edition, Wiley, 1997. (QD251.2.S689F)

Morris Hein, *Introduction to general, organic, and biochemistry*, 10th Edition, John Wiley, 2012. (QD31.3.I61 2012)

Douglas Applequist, *Introduction to organic chemistry*, 3rd Edition, Wiley, 1982. (QD253.A648)

Oxford Chemistry Primers

Michael Hornby, *Foundations of organic chemistry*, Oxford University Press, 1995. (QD253.H814)

Michael Hornby, *Foundations of organic chemistry: worked examples*, Oxford University Press, 2000. (QD253.H814F)

Howard Maskill, *Mechanisms of organic reactions*, Oxford University Press, 1996. (QD476.M397)

Michael J. T. Robinson, *Organic stereochemistry*, Oxford University Press, 2000. (QD481.R663)

Additional Books

Dieter Hellwinkel, *Systematic nomenclature of organic chemistry: a directory to comprehension and application of its basic principles*, Springer, 2001. (QD291.H477)

BS1008 BIostatISTICS

Subject Coordinator: Assoc Prof Lu Lanyuan

Prescribed Textbook

Geoffrey R. Norman, *Biostatistics: the bare essentials*, 4th Edition, People's Medical Publishing House-USA, 2014 (Call no: QH323.5.N842 2014, E-Book)

BS1200 UNDERSTANDING SINGAPORE HEALTHCARE SYSTEM

Subject Coordinator: Dr Sze Chun Chau

Prescribed Textbook

Singapore's Health Care System
(Ed. Lee Chien Earn & K. Satk, World Scientific Publishing)
ISBN 978-9814696050

BS0004 INTRODUCTION TO DATA SCIENCE

Subject Coordinator: Dr Wilson Goh

Prescribed Textbook / Reference

NIL

BS2001 PHYSIOLOGY

Subject Coordinator: Assoc Prof Valerie Lin

Prescribed Textbook

Sherwood, Lauralee, *Human physiology: from cells to systems*, 9th Edition, Cengage Learning, 2016 (ISBN: 9781285866932).

Reference

Eric P. Widmaier, *Vander's human physiology: the mechanisms of body function*, 13th Edition, McGraw-Hill, 2014. (QP34.5.V228 2014)

BS2002 MICROBIOLOGY

Subject Coordinator: Assoc Prof Scott Rice / Assoc Prof Kevin Pethe

Prescribed Textbook

Joanne M. Willey, *Prescott's microbiology*, 9th Edition, McGraw-Hill, 2014. (Call no: QR41.2.W714 2014)

BS2003 BIOCHEMISTRY II

Subject Coordinator: Prof Gerhard Gruber

Prescribed Textbook

Donald Voet, *Biochemistry*, 4th Edition, John Wiley & Sons, 2011. (Call no: QP514.2.V876 2011)

Christopher K. Mathews, *Biochemistry*, 4th Edition, Pearson, 2013. (QD415.M429 2013)

Jeremy Mark Berg, *Biochemistry*, 7th International Edition, W.H. Freeman, 2012. (QP514.2.S928 2012)

Laurence A . Moran, *Principles of biochemistry*, 5th International Edition, Pearson, 2012. (QP514.2.P957 2012)

BS2100 MOLECULAR AND CELL BIOLOGY TECHNOQUES LEVEL 2

Subject Coordinator: Asst Prof Alexander Ludwig / Asst Prof Li Yinghui

Reference

CRISPR-Cas: A Laboratory Manual (ISBN 978-1-621821-31-1)

Molecular Cloning: A Laboratory Manual (ISBN 0879695773)

Principles and Techniques of Biochemistry and Molecular Biology (ISBN 9780511813412)

BS3037 VIROLOGY [NEW COURSE CODE]

Subject Coordinator: Assoc Prof Richard Sugrue

Prescribed Textbook

Introduction to Modern Virology 7th Edition

by Nigel J. Dimmock (Author), Andrew J. Easton (Author), Keith N. Leppard (Author)

Language: English

ISBN-10: 1119978106

ISBN-13: 978-1119978107

Edward K. Wagner, *Basic virology*, 3rd Edition, Blackwell Pub., 2008. (Call no: QR360.W132 2008) E book

Understanding Viruses 3rd Edition

by Teri Shors (Author)

ISBN-13: 978-1284025927

Publisher: Jones & Bartlett Learning; 3 edition (August 12, 2016)

Language: English

ISBN-10: 1284025926

ISBN-13: 978-1284025927

N. H. Acheson, *Fundamentals of molecular virology*, 2nd Edition, John Wiley & Sons, 2011. (QR389.A177 2011)

BS3001 NEUROBIOLOGY

Subject Coordinator: Asst Prof Ayumu Tashiro

Prescribed Textbook

Dale Purves, *Neuroscience*, 6th Edition, Sinauer Associates, 2018. (Call no: QP355.2.N494 2018)

Reference

Eric R. Kandel, *Principles of neural science*, 5th Edition, McGraw-Hill, 2012. (QP355.2.P957 2013)

Mark Bear, *Neuroscience*, 4th Edition, Wolters Kluwer, 2015

BS3003 DEVELOPMENTAL BIOLOGY

Subject Coordinator: Dr Peter Cheung

Prescribed Textbook

Michael J.F. Barresi and Scott F. Gilbert, *Developmental biology*, 12th Edition, Oxford University Press, 2019. (ISBN: 9781605358222)

Lewis Wolpert, *Principles of development*, 4th Edition, Oxford University Press, 2011. (QH491.P957 2011)

Reference

Alfonso Martinez Arias, *Molecular principles of animal development*, Oxford University Press, 2002. (QH506.M385)

J. M. W. Slack, *Essential developmental biology*, 3rd Edition, Blackwell Pub., 2013 (QH491.S631 2013)

BS3004 CANCER BIOLOGY AND THERAPY

Subject Coordinator: Asst Prof Melissa Fullwood

Prescribed Textbook

Robert Allan Weinberg, *The biology of cancer*, 2nd Edition, Garland Science, 2013. (Call no.: RC268.4.W423 2014)

BS3008 COMPUTATIONAL BIOLOGY AND MODELING

Subject Coordinator: Assoc Prof Mu Yuguang

Prescribed Textbook

Schlick, Tamar, *Molecular modeling and simulation: an interdisciplinary guide*, 2nd Edition, Springer, 2010. (Call no: QD480.S344 2010, E-Book)

Hinchliffe, Alan., *Molecular modelling for beginners*, 2nd Edition, Wiley, 2008. (QD480.H659M 2008)

Höltje, Hans-Dieter, *Molecular modeling: basic principles and applications*, 3rd revised and expanded Edition, Wiley-VCH, 2008. (Call no: QH506.M718MMB 2008)

BS3018 PLANT BIOLOGY

Subject Coordinator: Asst Prof Oliver Mueller-Cajar

Prescribed Textbook

Raven Biology of Plants 8th Edition
by Ray F. Evert (Author), Susan E. Eichhorn (Author)

Publisher: W. H. Freeman; 8 edition (March 2, 2012)

Language: English

ISBN-10: 1429219610

Bob B. Buchanan, *Biochemistry and Molecular Biology of Plants*, 2nd Edition, American Society of Plant Physiologists, 2015.

Reference

Lincoln Taiz, *Plant Physiology and Development*, 6th Edition, Sinauer Associates, 2015

BS3021 BIOIMAGING TECHNIQUES IN EM

Subject Coordinator: Asst Prof Shashi Bhushan

Prescribed Textbook

Single-particle Cryo-EM of Biological Macromolecules, Editors: Robert M Glaeser, Eva Nogales and Wah Chiu

Online ISBN: 978-0-7503-3039-8, Print ISBN: 978-0-7503-3037-4

Williams and Carter, *Transmission Electron Microscopy a Textbook for Material Science*, 2nd Edition, Springer, 2009. (Call No.: TA417.23.W716 2009)

Joachim Frank, *Three-Dimensional Electron Microscopy of Macromolecular Assemblies: Visualization of Biological Molecules in their Native State*, 2nd Edition, Oxford, 2006. (QH324.9.T45F828) E book

BS2023 REGULATORY CONTROL OF HEALTHCARE PRODUCTS AND MEDICAL DEVICES

Subject Coordinator: Prof Yoon Ho Sup, Joe / Dr Nealda Yusof

Reference

Jonathan S. Kahan, Hogan Lovells US LLP, *Medical Device Development: Regulation and Law*, 3rd Edition, Parexel Intl Corp, 2014, ISBN-13: 978-0988314436

Rosemary Hawkins, *Medical Device Approval and Regulation in 16 Countries: Brief Overviews*, Nova Science Publishers, ISBN: 978-1-63484-242-6

Carl T. DeMarco, *Medical Device Design and Regulation*, ASQ Quality Press, 2011, ISBN: 0873898168, 9780873898164

Mindy J. Allport-Settle, *Current Good Manufacturing Practices: Pharmaceutical, Biologics, and Medical Device Regulations and Guidance Documents*, PharmaLogika, Inc., ISBN: 1449505236, EAN-13 9781449505233

Jean-Pierre Boutrand, *Biocompatibility and Performance of Medical Devices*, Woodhead Pub Limited, 2012, ISBN: 0857090704, 9780857090706

Medical devices – Application of risk management to medical devices, ISO (the International Organization for Standardization) ISO14971:2019 (en), **Document published on:** 2019-12

Medical devices – Quality management systems – Requirements for regulatory purposes, ISO (the International Organization for Standardization) ISO13485:2016 (en), **Document published on:** 2016-03-01

C. C. W. Schoenmakers, *Ce Marking for Medical Devices: A Handbook to the Medical Devices Directives: Medical Devices Directive 93/42/Eec : The Active Implantable Medical Devices Directive 90/396/Eec*, **ISBN-13:** 978 1559379465

BS2024 EVOLUTION IN HEALTH & DISEASE

Subject Coordinator: Assoc Prof Konstantin Pervushin/ Asst Prof Kim Hie Lim

Reference

Mark Jobling et al. *Human Evolutionary Genetics*. Second edition. (Garland Science, 2014). ISBN: 9780815341482

Johnathan B. Losos. *The Princeton Guide to Evolution*. (Princeton: Princeton University Press, 2014). ISBN: 9780691149776.

Andrew F.G. Bourke. *Principles of social evolution*. (Oxford: Oxford University Press, 2011). ISBN: 9780199231157

John Maynard-Smith and Eörs Szathmáry. *The Major Transitions in Evolution*. (Oxford: Oxford University Press, 1995) ISBN: 9780198502944

Stephen C. Stearns and Jacob C. Koella. *Evolution in Health and Disease*. Second edition (Oxford: Oxford University Press, 2008) ISBN: 9870199207459

David N. Cooper (Editor), Hildegard Kehrer-Sawatzki (Editor). *Handbook of Human Molecular Evolution*, 2 Volume Set (Wiley 2008). ISBN: 978-0-470-51746-8

BS3027 LIGHT AND BIOMOLECULE BEHAVIOUR IN HEALTH AND DISEASE

Subject Coordinator: Assoc Prof Jaume Torres

Prescribed Textbooks / Reference

The physical and chemical basis of molecular biology / Thomas E. Creighton. Creighton, Thomas E., 1940-S.I.] : Helvetian Press ; Eastbourne, East Sussex, U.K. : Distributed by Gardners Books, c2010. 2010 Helvetian Press (Firm) Accession Number: ntu.750369

Biophysical chemistry (Part II)/ Charles R. Cantor, Paul R. Schimmel. Cantor, Charles R.. San Francisco : W. H. Freeman, c1980. v. : ill. ; 24 cm. Language: English, Database: NTU Library Catalogue

Infrared Spectroscopy: Fundamentals and Applications. 2004 John Wiley & Sons, Ltd Barbara H. Stuart. DOI: 10.1002/0470011149. Book Series: Analytical Techniques in the Sciences. Series Editor(s): David J. Ando

2005 Fluorescence spectroscopy in biology : advanced methods and their applications to membranes, proteins, DNA, and cells / volume editors, M. Hof, R. Hutterer, V. Fidler. Berlin ; New York : Springer, c2005. Springer series on fluorescence; 3. Accession Number: ntu.385596. Database: NTU Library Catalogue

Principles of Fluorescence Spectroscopy. doi: 10.1007/978-0-387-46312-4

Editors: Joseph R. Lakowicz. _978-0-387-31278-1 (Print) 978-0-387-46312-4 (Online)

href="http://www.springerlink.com.ezlibproxy1.ntu.edu.sg/openurl.asp?genre=book&isbn=978-0-387-31278-1">2006

1989 Practical Raman Spectroscopy. Dr. Derek J. Gardiner, Dr. Pierre R. Graves

ISBN: 978-3-540-50254-8 (Print) 978-3-642-74040-4 (Online)

BS3201/BS3038 INTELLECTUAL PROPERTY RIGHTS RELATED TO BIOBUSINESS

[NEW]

Subject Coordinator: Dr Sze Chun Chau

Prescribed Textbooks / Reference

Commercialisation of Biotechnology Research by Jakobsen PH. Akademisk forlag 5 sep 2019, ISBN: 9788750055198

<https://www.akademisk.dk/commercialisation-biotechnology-research#>

BS3202 COMMERCIALIZATION OF MOLECULAR & CELL BIOLOGY TECHNIQUES [NEW]

Subject Coordinator: Dr Sze Chun Chau

Prescribed Textbooks / Reference

TRIEZ textbook of Clinical Chemistry and Molecular Diagnostics by Carl A. Burtis, Edward R. Ashwood, David E. Bruns

BS4002 CURRENT TOPICS IN CELL BIOLOGY

Subject Coordinator: Asst Prof Miao Yansong

Reference

References information and papers will be given using TEL online system.

Bruce Alberts, Dennis Bray, Karen Hopkin, Alexander Johnson, Julian Lewis, Martin Raff, Keith Roberts, Peter Walter, *Essential Cell Biology*, Fourth Edition, Garland Science - Taylor & Francis Group; October 14, 2013, ISBN: 9780815344544;

Research Articles will be provided.

BS4010 SYNTHETIC BIOLOGY

Subject Coordinator: Assoc Prof Gao Yonggui

Prescribed Textbook

Zhao Huimin, *Synthetic Biology: Tools and Applications*, Academic Press, 2013. (Call no.: TA164.S993)
E book

E.R.Hamilton, M. L. Morales, *Synthetic Biology: Prospects and Implications*, Nova Science Pub Inc., 2012. (Call no.: QH585.S993)

Markus Schmidt, *Synthetic Biology: Industrial and Environmental Applications*, Wiley-Blackwell Press, 2012. (Call no.: TP248.S993) E book

[Anton Glieder](#), [Christian P. Kubicek](#), [Diethard Mattanovich](#), [Birgit Wiltschi](#), [Michael Sauer](#), *Synthetic Biology*, 1st Editor, Springer Press, 2016.

BS4014 MOLECULAR BASIS OF DISEASES

Subject Coordinator: Assoc Prof Surajit Bhattacharyya

Prescribed Textbook

John Mendelsohn, Joe W. Gray, Peter M. Howley, Mark A. Israel, Craig B. Thompson. Philadelphia, PA, The molecular basis of cancer, 4th Edition, 2015, Elsevier Saunders, ISBN-13: 978-1455740666

Patrick G. Guilfoile, Antibiotic resistant bacteria, Chelsea House Publishers, New York, N.Y., c2007, ISBN: 0791091880 (hc : alk. paper)

Reference

Thomas E. Creighton, Protein folding, W.H. Freeman and Co., Biochemical Education [http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1879-1468](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1879-1468)>, Volume 21, Issue 1 <http://onlinelibrary.wiley.com/doi/10.1002/bmb.569.v21:1/issuetoc>>, Article first published online: 30 JUN 2010, ISBN 0-7167-7027-X

BS4015 PLANT BIOTECHNOLOGY

Subject Coordinator: Dr Hong Yan / Asst Prof Ma Wei

Reference

Plant Biotechnology and Agriculture: Prospects for the 21st Century, 1st Edition by Arie Altman and Paul Michael Hasegawa, Academic Press, 2011, ISBN: 9780123814661

Plant Biotechnology and Genetics: Principles, Techniques, and Applications, 2nd Edition by C. Neal Stewart Jr. (Editor), John Wiley & Sons, 2016, ISBN: 978-1-118-82012-4, 432 Pages

BS4017 HIGH-THROUGHPUT BIOINFORMATICS

Subject Coordinator: Asst Prof Jarkko Tapani Salojarvi

Prescribed Textbook / Reference

NIL

BS8004 TRADITIONAL CHINESE MEDICINE: A PRIMER COURSE 中医入门

Subject Coordinator: Dr Zhao Yan

Reference

Sun, Guangren. *Zhong yi ji chu li lun*, 2nd Edition, Zhongguo Zhong yi yao chu ban she, 2007 (Call no: R601.Z63J 2007)

Gao, Xuemin. *Zhong yao xue*, 2nd Edition, Zhongguo Zhong yi yao chu ban she, 2007 (RS180.C5Z63X 2007)

Shi, Xuemin. *Zhen jiu xue*, 2nd Edition, Zhongguo Zhong yi yao chu ban she, 2007 (RM184.Z63E 2007A)

BS8101 DEEP, BIOLOGICALLY

Subject Coordinator:

Dr Sze Chun Chau (Sem 1)

Dr Wilson Goh (Sem 2)

Prescribed Textbook

McWilliams, *Foods: Experimental Perspectives*, 8th Edition, Pearson, 2016. ISBN-13: 978-0134204581

Barbara Scheule and Marion Bennion, *Introductory Foods*, 14th Edition, Pearson, 2014. ISBN-13: [978-0132739276](#)

SP0056 WORKINGS OF THE HUMAN BODY

Subject Coordinator: Dr Peter Cheung

Prescribed Textbook

Jane B Reece, Martha Taylor, *Campbell Biology Concepts and Connections*, 9th Edition, Pearson, 2017, ISBN: 978-0134296012

References

Michael D Johnson, *Human Biology Concepts and Current Issues*, 8th Edition, Pearson, 2016, ISBN: 978-0134042435.