



List Required Textbooks (BSc PHYSICS)

(مصادر التعلم في

برنامج بكالوريوس العلوم في الفيزياء).

1. *Mathematical methods for physical sciences*, Boas (Wiley) 3rd edition (2005).
2. *Thermodynamics*, K. Wark Jr. and D. E. Richards, 6th ed. McGraw Hill, 1999
3. *Physics for Scientists and Engineers with Modern Physics*, Ninth Edition, Raymond A. Serway, Boston, MA 02210 USA, 2016.
4. *Physics for scientists and engineers*, John W. Jewett, Jr., and Raymond A. Serway, 2010, 8th edition, International Edition,, Brooks Cole, Cengage Learning, Canada.
5. *Classical Mechanics: a Critical Introduction*, Michael Cohen, 2012,Hindawi Publishing Corporation, Egypt, ISBN 978-977-454-110-0
6. *Ways of Knowing: A New History of Science, Technology, and Medicine*2nd Edition, John V. Pickstone, The university of Chicago Press, ISBN-13:978-0226667959
7. *The Scientific Revolution* (science. Culture)1st Edition, by [Steven Shapin](#), The university of Chicago Press , ISBN-13:978-0226750217

8. ***The Golden Age Of Arabic Science***, Pathfinders ,Hardcover–
International Edition, November 23, 2010 by [Jim Al-Khalili](#)
9. ***Arab Science and Invention in the Golden Age*** Hardcover– October
1, 2009 by Anne Blanchard
- 10., ***Fundamentals of Physics*** ,Halliday, Resnik and Walker; John Wiley
and Sons Inc., 2007
11. ***Vibrations and Waves*** ,A. P. French, ,ISBN-13: 978-8123909141,CRC
press
12. ***The Thinker's Guide to Scientific Thinking***, 4th edition Richard Paul
and Linda Elder. 2015, **ISBN (10Digit): 0-9857544-2-7**, Thinker's
Guide Library
13. ***Writing Science through Critical Thinking*** (Jones and Bartlett Series
in Logic, Critical Thinking, and Scientific Method)1st Edition by
[Marilyn F. Moriarty](#) , ISBN-13:978-0867205107 , Goodreads
publications
14. ***Developing Critical Thinking Through Science: Book 1***by [June
Main](#)(Author),Paul Eggen(Author) , ISBN-13:978-0894554247 Jones
and Bennet Series
15. ***Analytical mechanics***; Fowles and Cassiday, Thomson Learning, Inc.
5th edition.

16. *Physics principals with applications* , Douglas C. Giancoli, 2005,
Plarson education, USA.
17. *Optics*, Eugene Hecht, Publisher- Addison-Wesley; ISBN-10:
9780805385663
18. *Calculus and Analytical* Geometry by George B. Thomas, Jr and Ross
L Finney, Addison-Wesley Publishing Company (9th Edition)
19. *Calculus and Analytical Geometry*, Thomas and Finney, Edission
Wesley 9th Edition
20. *Introduction to modern physics*, R. B. Singh, New Age International
(P) Ltd., Publishers- 2009 ISBN (13) : 978-81-224-2922-0.
21. *Quantum Mechanics-Concepts and Applications*, N. Zelliti, John
Wiley and Sons, LTD 2001 ISBN: 0-471-48943-3.
22. *Modern Physics for Science and Engineering*, First Edition Marshall
L. Burns, Tuskegee University
23. *Introduction to solid state physics* CHARLES KITTEL, “”, Eighth
edition, 2005 John Wiley&Sons, Inc.
24. *Solid State Physics Principles and Modern Applications* ,John J.
Quinn and Kyung-Soo Yi, “, Second Edition, Springer International
Publishing AG, part of Springer Nature 2018.

25. ***Solid State Physics*** ,Philip Hofmann, “”, 2015 Wiley-VCH Verlag GmbH & Co.KGaA, Boschstr. 12, 69469 Weinheim,Germany
- 26.D. J. Griffiths.. Pearson International edition. 1999.
- 27.***Introduction to electrodynamics*** , The Cosmic Perspective, by Bennett, Donahue, Scheider, and Voit, 8th edition.
- 28.***Enhancing and Expanding Undergraduate Research: A Systems Approach***, Mitchell Malachowski, Jeffrey M. Osborn, Kerry K. Karukstis, Elizabeth L. Ambos, Volume 2015, Issue 169, Wiley publication
- 29.***Mathematical methods for physical sciences***, Boas (Wiley) 3rd edition (2005).
- 30.***Analytical Mechanics***, Textbook by Carl S. Helrich, 2016, Springer
- 31.***Introduction to statistical physics***, Kerson Huang
- 32.***Electronic Principles*** by Albert alvino, McGraw Hill ISBN13: 9780028028330, ISBN10: 0028028333
- 33.***Introduction to Digital Electronics***. By C. Hawkins and J.Segura, SciTech Publishing, 2010/ ISBN 9781891121074
- 34.***Modern Multivariate Statistical Techniques***: Regression, Classification, and Manifold Learning (Springer Texts in Statistics)1st

ed. 2008, Corr. 2nd printing 2013 Edition by Alan J. Izenman Springer,

ISBN-13: 978-0387781884

35. *Numerical Methods*, Pallab Ghosh, Publisher: Prentice Hall of India

Private Ltd, New Delhi ,ISBN: 81-203-2987-2

36. *An Introduction to Computational Physics*, Tao Pang, Publisher:

Cambridge, University Press, ISBN-13: 978-0-521-82569-6, ISBN-10:

0-521-82569-5

37. *An Introduction to Programming and Numerical Method in*

MATLAB by S. R. Otto and J. P. Denier; Publisher: Springer, USA,

ISBN-13: 978-1852339197 ISBN-10: 1852339195.

38. *An Introduction to computational Physics*, Tao Pang, Cambridge

University Press, 2006 ISBN-13: 978-0-521-82569-6

39. *Red hat Linux Bible*, Christopher Negus, Publisher: Wiley–

dreamtech India Pvt. Ltd

40. *The C++ Programming Language: Special Edition*, Bjarne Stroustrup,

Publisher: Pearson Education, ISBN: 0-201-88954-4

41. *Lasers Principles and Applications*, Wilson, J., Hawkes, J. F. B.

Prentice Hall International. ISBN-10: 0135236975

42. *Laser Fundamentals*, 2nd edition, William T. Silfvast, University of

Central Florida ,ISBN: 9780511616426



43. **University Physics**, H. D. Young and R. A. Freedman, 9th edition, Addison-Wesley, Reading, MA (1996).
44. **"Solid State Physics" Structure and Properties of Materials**"M. A. Wahab, , Second Edition , Narosa Publishing House, New Delhi Chennai Mumbai Kolkata 2006
45. **Engineering Materials: an Introduction to their Properties and Applications"**, Ashby, M. F. and Jones, D. R. H., " 1st Edn., Pergamon Press, 1980.
46. **"Introduction to Materials Science"**, Deighton, M., Mead, J. A., Oxford U. P., 1978. 3. Brick, R. M., Pense, A. W., and Gordon, R. B., "Structure and Properties of Engineering Materials", 4th Edn., McGraw-Hill, 1977.
47. **"Intorudction to Ceramic Science"**, Budworth, D. W., Pergamon Press, 1970. 5. Van, V. and Lawrence, H., "Materials Science for Engineers", Addison-Wesley, 1970.
48. **"Materials Science and Engineering: a First Course"**, Raghavan, V., 2nd Edn., Prentice-Hall, 1982. 7. V
49. **Phase Diagrams: Materials Science and Technology"**, Alper, Allen M., " Academic Press, 1970.
50. **The Theory of Atomic Structure and Spectra** / Robert D.Cowan.



51. ***Introductory Nuclear Physics***, **Kenneth S. Krane**, John Wiley & Sons; 3rd edition (1987).
52. ***Introduction to High Energy Physics***, Donald H. Perkins, Cambridge University Press; 4th edition (2000).
53. ***Basic Theoretical Physics (A Concise Overview)***, **Krey, Uwe, Owen, Anthony**, Springer, 2007 ISBN 978-3-540-36805-2
54. ***Introduction to Modern Optics***, Grant R. Fowles, Dover Publications, ISBN-10: 0486659577 2. **Fundamentals of Photonics**, Bahaa E. A. Saleh , Wiley-Interscience, ISBN-10: 0471358320
55. ***Scanning Electron Microscopy and X-ray Microanalysis***, 3rd edition, Kluwer/Springer Publishers (2003).
56. ***“Semiconductor Physics and Devices-Basic Principles”*** Donald A. Neamen, , Fourth Edition, The McGraw-Hill Companies, Inc., 2012.
57. ***Experiments in Modern Physics***: by A. Melissinos (Academic Press: 2003 2nd Edition).
58. ***An Introduction to Error Analysis_ The Study of Uncertainties in Physical Measurements***, by John R. Taylor (2nd edition 1997, University Science Books)
59. ***Data Reduction and Error Analysis***: 3rd Edition, by P.R. Bevington and D.K. Robinson (McGraw-Hill: 2003).



60. ***Communicating Science: A Practical Guide***, by Pierre Laszlo (2006, Springer)

61. ***Nanophysics and Nanotechnology: An Introduction to Modern Concepts in Nanoscience***, 2nd Edition, by Edward L. Wolf.

62. ***Nuclear Reactor Kinetics and Plant Control***; Yoshiaki Oka and Katsuo Suzuki; 2013; Springer; ISBN: 4431541942

63. ***Atoms, Radiation, and Radiation Protection*** James E. Turner..2007 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim.

64. ***Introduction to Plasma Physics and Controlled Fusion*** F. F. Chen, , 2nd ed. (Plenum, New York, 1984).

65. ***Introductory Biophysics: Perspectives on the Living State***, y J. R. Claycomb, Jonathan)

66. ***A companion to astronomy and astrophysics*** Kenneth. R. Lang, , Springer, New York, USA, 2006.

67. ***Lectures Astronomy Astrophysics Cosmology Notes taken & transcribed Feynman Hughes***, by John. T. Neer, 2014.

68. ***An Introduction to Applied and Environmental Geophysics*** ;John M. Reynolds , 2nd Edition; Reynolds International Ltd.

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