

# **SAVITRIBAI PHULE PUNE UNIVERSITY**

**T.Y.B.A. HISTORY SYLLABUS**

**From 2015 -2016**

**HISTORY OF THE WORLD IN 20<sup>TH</sup> CENTURY (1914-1992)**

**LEVEL: G3**

## **9. INDIAN HISTORIANS**

**(10)**

**9.1 R. C. Mujumdar**

**9.2 K. A. Niolkant Shastri**

**9.3 D. D. Kosambi**

**9.4 Romila Thapar**

## **10. HISTORICAL STUDY TOUR OR PROJECT WORK**

### **PROJECT WORK & EVALUATION SCHEME**

1. Term end examination of 60 marks shall be held at the end of the first term.
2. Candidate shall submit a report of minimum 3000 words i.e. 10 to 15 pages to the department by end of the February.
3. A viva-voce should be conducted before theory examination and the results should be sent to the University as immediately
4. The result should be prepared as follows:
  - a) 60 marks of term end examination converted in to 20 marks
  - b) 50 marks Annual examination for 2 hours conducted by University of Pune Equal weightage for all topics
  - c) 30 Marks exam should be conducted by the department 20 marks for Project work & 10 marks Viva-voce exam.

### **BOOKS FOR STUDY**

#### **ENGLISH**

1. Avneri S., Social and Political Thought of Karl Marx, Cambridge, 1968.
2. Barnes H.E., History of Historical Writing, Dover, New York, 1963.

## Syllabus for

### Ability Enhancement Compulsory Course (AECC – Environment Studies)(2 credit) for under graduate

#### (For All Faculties - Second Year - Semester III)

#### It is as per UGC guidelines and framing -

#### **Unit 1 : Introduction to environmental studies**

- Multidisciplinary nature of environmental studies;
- Scope and importance; Concept of sustainability and sustainable development.

(2 lectures)

#### **Unit 2 : Ecosystems**

• What is an ecosystem? Structure and function of ecosystem ; Energy flow in an ecosystem : food chains, food webs and ecological succession. Case studies of the following ecosystems :

- a) Forest ecosystem
- b) Grassland ecosystem
- c) Desert ecosystem
- d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

(8 lectures)

#### **Unit 3 : Natural Resources : Renewable and Non-renewable Resources**

- Land resources and land use change; Land degradation, soil erosion and desertification.
- Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
- Water : Use and over-exploitation of surface and ground water, floods, droughts conflicts over water (international & inter-state).
- Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

(10 lectures)

#### **Unit 4 : Biodiversity and Conservation**

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega-biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity.
- Ecosystem and biodiversity services : Ecological, economic, social, ethical, aesthetic and Informational value.

(10 lectures)

#### **References :**

1. Carson, R. 2002. Silent Spring. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. This Fissured Land: An Ecological History of India. Univ. of California Press.

3. Gleeson, B. and Low, N. (eds.) 1999. *Global Ethics and Environment*, London, Routledge.
4. Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. *Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339 : 36-37.
7. McCully, P. 1996. *Rivers no more: the environmental effects of dams* (pp. 29-64). Zed Books.
8. McNeill, John R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth Century*.
9. Odum, E.P., Odum, H.T. & Andrews, J. 1971. *Fundamentals of Ecology*. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. *Environment*. 8<sup>th</sup> edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M.L. 2001. *Environmental law and policy in India*. Tripathi 1992.
14. Sengupta, R. 2003. *Ecology and economics : An approach to sustainable development*. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. *Conservation Biology : Voices from the Tropics*. John Wiley & Sons.
17. Thapar, V. 1998. *Land of the Tiger: A Natural History of the Indian Subcontinent*.
18. Warren, C. E. 1971. *Biology and Water Pollution Control*. WB Saunders.
19. Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York : Norton.
20. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press.

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Ability Enhancement Compulsory Course (AECC – Environment Studies)(2 credit) for under graduate

(For All Faculties - Second Year - Semester IV)

It is as per UGC guidelines and framing -

### **Unit 5 : Environmental Pollution**

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management : Control measures of urban and industrial waste.
- Pollution case studies.

(10 lectures)

### **Unit 6 : Environmental Policies & Practices**

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(9 lectures)

### **Unit 7 : Human Communities and the Environment**

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management : floods, earthquake, cyclones and landslides.
- Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g. CNG vehicles in Delhi).

(6 lectures)

### **Unit 8 : Field work**

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.

- Visit to a local polluted site-Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems-pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

**References :**

1. Carson, R. 2002. Silent Spring. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. This Fissured Land: An Ecological History of India. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999. Global Ethics and Environment, London, Routledge.
4. Gleick, P. H. 1993. Water in Crisis. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. Principles of Conservation Biology. Sunderland: Sinauer Associates, 2006.
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# SavitribaiPhule Pune University



## Proposed structure of T. Y. B. Sc. (Physics) revised syllabus

To be implemented from 2014-2015

Sem III	Sem IV
PH-331: Mathematical Methods in Physics II	PH-341 Classical Electrodynamics
PH 332: Solid State Physics	PH-342: Quantum Mechanics
PH-333: Classical Mechanics	PH-343: Thermodynamics and Statistical Physics
PH-334: Atomic and Molecular Physics	PH-344: Nuclear Physics
PH-335: Computational Physics	PH-345: Electronics/Advanced Electronics
PH-336 Elective I : (Select any One)	PH-346 Elective II : (Select any One)
A: Astronomy and Astrophysics	G: Medical Electronics
B: Elements of Materials Science	H: Physics of Nanomaterials
C: Motion Picture Physics	I: Microcontrollers
D: Biophysics	J: Electro Acoustics and Entertainment Electronics
E: Renewable Energy Sources	K: Lasers
F: Applied Optics	L: Radiation Physics
PH-347: Laboratory Course I	
PH-348: Laboratory Course II	
✓ PH-349: Laboratory Course III (Project)	





T. Y. B. Sc. Physics  
PH348 Laboratory Course III  
Project

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It is expected that

1. The student does work equivalent to about twenty laboratory experiments through out both the semesters in the third year.
2. One bears in mind that the project work is a practical course and it is intended to develop a set of skills pertaining to the laboratory work apart from the cognition of students. Therefore, the guides should not permit projects that involve no contribution on part of student.
3. The project must have a clear and strong link with the principles of basic physics and/or their applications.
4. The theme chosen should be such that it promotes better understanding of physics concepts and brings out the creativity in the students.
5. The evaluation of the project work must give due credit to the amount of the project work actually done by a student, skills shown by the student, understanding of the physics concepts involved and the presentation of the final report at the time of viva voce.
6. The viva voce should be conducted at least for thirty minutes per student. Extra care must be taken in the evaluation of projects done in a pair or group. Delegation of the work done by individuals must be sought from the students in such cases.
7. Any ready-made material used in the report (such as downloaded pages from the web) must be clearly referred to and acknowledged.

Time schedule for project work:

- (1) Allotment of Internal guide by 30<sup>th</sup> July
- (2) Submission of synopsis by 14<sup>th</sup> August
- (3) Project work revision – every week
- (4) First draft by 15<sup>th</sup> February
- (5) Final report submission by 5<sup>th</sup> March.

Any non-adherence to this norm should attract a penalty by way of deduction in the marks awarded to a student. It is recommended that the College will provide consumables/contingencies for every project, to the tune of Rs. 500/- each. It is also recommended that a teacher will look after 4 projects at one time.