

ES 101: INTRODUCTION TO ENVIRONMENTAL SCIENCE AND ENGINEERING

Document Category: Handout # 01	Subject: Syllabus, Useful Info.	Author: Prof Shyam R Asolekar	Date: 31 Oct, 2022
------------------------------------	------------------------------------	----------------------------------	-----------------------

DIC-1 at ESED

DD UG Programme in ESED: 1st Year (1st Semester) B.Tech. + M.Tech.

Credit Structure: L : 3 T : 0 P : 0 C : 6

Shyam R. Asolekar Instructor	98204 10443 Only SMS (not on WhatsApp)	asolekar@gmail.com
Mohdd Zaid Teaching Assistant	79055 24541 (prefer WhatsApp or SMS)	22d1264@iitb.ac.in
Rishi Shandilya Teaching Assistant	94725 89223 (prefer WhatsApp or SMS)	22d1261@iitb.ac.in

SYLLABUS:

1. Introduction to Environmental Pollution
2. Major Environmental Episodes
3. Evolution of Pollution Control Strategies and Environmental Infrastructure
4. Natural Resources; Renewable and Non-renewable Energy Sources
5. Sustainability Concepts
6. Environmental Ethics
7. Evolution of Environmental Acts and Policies
8. History of Environmental Science and Engineering
9. Biography of Renowned Environmental Scientists and Professionals
10. Recent Research and Future Prospects in the field of Environment

TEXTS AND REFERENCES:

- a) Arceivala, S.J. and Asolekar, S.R.,
“Wastewater Treatment for Pollution Control and Reuse” (3rd Edition, 14th Reprint),
McGraw Hill Education (India) Pvt. Ltd., New Delhi, 2006.
- b) Asolekar, S. R. and Gopichandran, R.,
Preventive Environmental Management - An Indian Perspective,
Foundation Books Pvt. Ltd., New Delhi (the Indian associate of Cambridge University
Press, UK), 2005.
- c) Cunningham W.P. and Cunningham M.A.,
Principles of Environmental Science,
Tata McGraw-Hill Publishing Company, New Delhi, 2002.

- d) Jackson, A.R.W. and Jackson, J.M.
Environmental Sciences: The Environment and Human Impact,
Longman Publishers, 1996.
- e) Masters, G.M., Introduction to Environmental Engineering and Science,
Prentice Hall, 2008, New Delhi, 2008.
- f) Rosencranz, A., Divan, S. and Noble, M.L.,
Environmental Law and Policy in India: Cases, Materials and Statutes,
Tripathi Pvt. Ltd, Bombay, 1992.
- g) Invited Talks from Environment Experts; Recorded Videos, Films and
- h) Reference Study Material such as published Book Chapters, Reports, Monographs,
Review Papers, Research Papers, Webpages