

SANT GADGE BABA AMRAVTI UNIVERSITY, AMRAVATI
Common Syllabus in the branches of Engineering & Technology
Semester III / IV as per NEP 2020

Course Title: Value Education Courses (VEC) Course Code: 3SH208VE

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exams Duration	Max Marks
	III	3SH208VE	Value Education Course (VEC- I)	2	30	2 Hrs	30

Course Objectives	1. To make student aware of the trajectories of historical and cultural development of India. 2. To Make student aware of the Ideological image of Indian Society. 3. To make student aware of the Ethnographic Image of Indian Society. 4. To create among students pro-environmental attitude and behaviour pattern. 5. To create a sense of how to be more responsible towards the environment.		
Course Outcomes	By the end of this course, students will be able to: 1. Analyze the ideological and ethnographic images of Indian Society 2. Inculcate a critical thinking on various dimensions of environment through knowledge, skill, critical thinking and problem solving. 3. Analyze the causes and effects of ‘environmental degradation and resource depletion’. 4. Understand the nature of environmental challenges facing India. 5. Relate environmental issues to the larger context of sustainable development.		
Unit System	Contents	Workload Allotted	Weightage of Marks Allotted
Unit I	Ideological Images of Indian Society i. Pluralism and Nationalism ii. Indian Constitution iii. Indian Civilization iv. Modernization and Continuity of Tradition	8 Hrs	8 Marks
Unit II	Ethnographic Image of Indian Society i. Unity in Diversity ii. Urban and Rural India iii. Caste and Tribes iv. Religions and Traditions	7 Hrs	7 Marks
Unit III	Understanding the Environment I. Environment: Concept, importance and components II. Ecosystem: Concept, structure and unction	8 Hrs	8 Marks
	III. Concept and objectives: Environmental education, environmental ethics. IV. Central Pollution Control Board of India: Standard, Activities, Function of Laboratories.		
Unit IV	Natural Resources and Environmental Management I. Natural Resources: Renewable and non-renewable. II. Natural resource and solid waste management: Individual, community and government level III. Air, water and soil pollution: Causes, effects and control IV. Climate change: Global warming-impact, adoption and mitigation	7 Hrs	7 Marks

References:

- Anji Reddy,M. Text book of Environmental Science and Technology, BS Publications, Hyderabad
- Basu,R. N (Ed.)Environment, University of Kolkatta
- Basu.M.,Xavier, S.S. Fundamental of Environmental Studies, Cambridge University Press, India.
- BennyJoseph.2006.Environmental Science and Engineering, Tata Mc-Graw Hill, Publishing Company, New Delhi.
- Dr. B.R.Ambedkar, 2021.The Constitution of India, Prabhat Prakashan Pvt. Ltd.

SEMESTER IV

Course Title: Value Education Courses (VEC) II Course Code: 4SH219VE

Level	Semester	Course Code	Course Name	Credit s	Teaching Hours	Exams Duration	Max Marks
	IV	4SH219VE	Value Education Courses (VEC) II Environmental Science	2	30	2 Hrs	30

Course Objectives	1. To make student aware of the major contribution of India to world civilization in the field of Science and Technology. 2. To create sustainable life style and awareness on various issues. 3. To accomplish familiarity with digital technology. 4. To sensitize about role & significance of digital technology. 5. To explore, communicate and collaborate in cyber space. 6. To bring awareness about the e-governance and digital India initiatives. 7. To build awareness on cyber safety and security.		
Course Outcome	By the end of this course, students will be able to: 1. Inculcate a critical thinking on various dimensions of environment through knowledge, skill, critical thinking and problem solving. 2. Analyze the causes and effects of environmental degradation’ and ‘resource depletion.’ 3. Analyze the nature of environmental challenges facing India. 4. Relate environmental issues to the larger context of sustainable development. 5. Manage ICT and Digital Services in daily life. 6. Develop skills to communicate and collaborate in cyber space using social platforms, teaching/learning tools. 7. Realize of importance of digital technology, digital financial tools, e- commerce. 8. Assess the significance of security and privacy in the digital world. 9. Value e-governance and Digital India initiatives.		
Unit System	Contents	Work load Allotted	Weightage of Marks Allotted
Unit I	Environment and Sustainable Development i. Biodiversity: concept, levels, hot spots and values ii. Environmental issues: Local, regional and global iii. Environmental treatise and legalization iv. Importance of Indian Traditional knowledge on environment	8 Hrs	8 Marks
Unit II	India and Evolution of Digital System i. Role and Significance of Digital Technology ii. Information & Communication Technology & Tools iii. Electronic Communication: electronic mail, blogs, social media iv. Internet: concept and application	7 Hrs	7 Marks
Unit III	Computer based information system i. E-commerce and Digital Marketing ii. Digital India and E-governance; initiative, infrastructure, services and empowerment iii. Digital Financial tools: Unified payment interface, aadhar enabled payment system, Credit / debit card, e-wallets, internet banking, online payment and pos iv. Cyber Security: Threats, significance, challenges, precautions, safety measures and tools.	8 Hrs	8 Marks
Unit IV	Emerging Technology and their applications: i. Overview of cloud computing, ii. Virtual reality iii. Artificial Intelligence iv. Future of digital Technologies	7 Hrs	7 Marks

References:

- David Sutton. “Cyber security: A practitioner's guide”, BCS Learning & Development Limited, UK, 2017.
- Down to Earth, published by Centre for Science And Environment.
- Erach Bharucha.2005. Text book of Environmental Studies for undergraduate courses, University Grants Commission, New Delhi.
- Gupta, P.K. 2004. Methods in Environmental analysis–waters, oil and air.Published by Agrobios

- (India), Jodhpur.
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 7. <https://www.digitalindia.gov.in>
 8. <https://www.digilocker.gov.in>
 9. <https://www.meity.gov.in/cyber-surakshit-bharat-programme>
 10. <https://www.mha.gov.in/document/downloads/cyber-safety-handbook> Introduction".
Routledge Books, 2nd edition, 2021.
 11. Kaul, S.N. and Ashutosh Gautam.2002. Principles of Environmental Studies. Daya Publishing house, New Delhi.
 12. Manoharachary, C. and P.Jayaramareddy 2009. Principles of environmental studies (ecology, economics, management and law), BS publications, Hyderabad.
 13. Rodney Jones and Christoph Hafner. 2021, "Understanding digital literacies: A practical, Routledge.
 14. Sharma, P.D.2017.Ecology and Environment. Rastogi, Publication, Meerut.
 15. Sharma, R.C. and D. Gurbir Sangha 2006. Environmental studies. Kalyani publishers, New Delhi.
 16. Sushmitha Baskar and R.Baskar.2007. Environmental studies for under-graduate courses. Published by Unicon books, Delhi.
 17. Swarajya Lakshmi, G., Prabhu Prasadini, P., Ramesh Thatikunta and VNLV Tayaru. 2010. Environmental Science A Practical Manual, BS publications, Hyderabad

Internal Assessment:

Total 20

The course should be conducted in an interactive mode through demonstration, using appropriate tools.

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| 1) Class Test | 10 |
| 2) Mini Projects | 10 |

Note for Internal Assessment:

1. Internal assessment the subject teacher shall be the sole examiner.
 2. At least 8MCQs shall be for Internal Assessment
 3. The Project shall be based on prescribed syllabus with minimum 8-10 pages or 3-5 minutes video uploaded on YouTube
- Suggestive Projects: Students will take up team activities / projects exploring topics mentioned in the syllabus.

Pattern of Question paper and Distribution of Marks

Maximum Marks: 30

Time: Two Hours

- Que.1A: Students shall have to answer 4 out of 6 short answer questions based on Unit I to Unit II. 4X2 = 8
- Que. 1: B:Students shall have to answer 4 out of 6 short answer questions based on Unit III to Unit IV 4X2 =8
- Que.2: Students shall have to answer 4 out of 6 long answer questions based on Unit I to Unit IV. 3.5X4 =14
