

Shri Shivaji Science College, Amravati
E – Contents for Under Graduate Students
Department of Environmental Science

B. Sc. Part – I (Semester – I)

Google Classrooms

S.N.	Name of the Teacher	Joining Link	Class Code
1.	Dr. S. P. Ingole		
2.	Dr. K. J. Gawai		

Notes and PowerPoints			Links to Video Lectures		
Topic	Link	Teacher	Topic	Link	Teacher
UNIT - I . CONCEPTS OF ENVIRONMENTAL SCIENCE	https://drive.google.com/drive/folders/17r6AWi9LIMBxTYuZbXhTVavnl_046gQ?usp=sharing (PPT)	Dr. S. P. Ingole	Water Distribution on Earth	https://drive.google.com/file/d/1lZZkMEOT7cATMCJX5r_xBOgCadz9y2NY/view?usp=sharing	Dr. S. P. Ingole
Unit I SCOPE (Notes)	https://drive.google.com/file/d/19tTfHLewUlpXwHqW3aDmC9AD-xqAI9QW/view?usp=sharing (Notes)		Water Distribution on Earth	https://drive.google.com/file/d/1R8W7vmDlnGuywZxqs6GsU3hENVDr4UE_/view?usp=sharing	
Unit I Humus (Notes)	https://docs.google.com/document/d/12n96GMndOrEXh988pTHyTxGJeLcXjBra/edit?usp=sharing&ouid=108431116234728584930&rtpof=true&sd=true		Rocks	https://drive.google.com/file/d/1eSvLigyfF4Vq6eJATWeoakg_smNrMKhz/view?usp=sharing	

Unit II- WATER NRS (Notes)	https://docs.google.com/document/d/1MNxWvzUjDcJzaCJqlaYZ_sYg7HvpvSOc/edit?usp=sharing&ouid=108431116234728584930&rtpof=true&sd=true		Ecological Role of Forest	https://drive.google.com/file/d/1iXKq29axXkAlt3uLMsRLuRNAMEi0F54Q/view?usp=sharing	Dr. K. J. Gawai
Unit II MINERALS IMP NATURAL RESOURCE (Notes)	https://docs.google.com/document/d/19BE07oUEGivxLZCcwCMw4nSZFH7VFxZj/edit?usp=sharing&ouid=108431116234728584930&rtpof=true&sd=true		Structure of the Earth's Atmosphere	https://drive.google.com/file/d/1p0YYMzMlioEc3eNFEzbvW_l4K7S4W9o1/view?usp=sharing	
Unit II Forests resources (Notes)	https://docs.google.com/document/d/1AJV9-g5fCbqdoiuAqsih5ljDZJQxUpVx/edit?usp=sharing&ouid=108431116234728584930&rtpof=true&sd=true		Atmospheric Pressure	https://drive.google.com/file/d/1mQ16c8mH5_yG698s4vhoysAhPczJUz57/view?usp=sharing	
Unit III insolationandheat budget-(PPT)	https://drive.google.com/file/d/1uPDpksbl-ToPNPXIU17ikj7BEpUpCcrE/view?usp=sharing		Atmospheric Pressure	https://drive.google.com/file/d/1kxFxZGCcgAm7N6L21SoByCAC_nn2x4cm/view?usp=sharing	
UNIT III Environmental meteorology-I.(S-I)) FINAL (Notes)	https://docs.google.com/document/d/147_VJRdH-1BzNKwww1TQrJ3FCwWl24t1/edit?usp=sharing&		Precipitation	https://drive.google.com/file/d/1xBv5QOz5-u17iHrNm3D60XsGGjLwvEV/view?usp=sharing	

	ouid=108431116234728584930&rtpof=true&sd=true				
Unit-IV- Meteorology-II (PPT + Notes)	https://drive.google.com/drive/folders/16MfSYgQ4c0a7AbzQiU6xlDRUYX1bRluO?usp=sharing		Forms of Precipitation	https://drive.google.com/file/d/1WhY1GJ1Emm6b0I9Zqi4KMxPrO7G_fViG/view?usp=sharing	
Unit-V Environmental Geosciences (PPT)	https://drive.google.com/drive/folders/1qu8xUmUltOHlorcxCJoneVezequVc0Di?usp=sharing		El Nino	https://drive.google.com/file/d/1GNG3s7XFB_nDi90f2FTsEM57XXmToPr/view?usp=sharing	
Unit-VI-Marine Environment (PPT+ Notes)	https://drive.google.com/drive/folders/1yEBOoDkuHuHaS3xPHf7OzYLF25QEnC_XP?usp=sharing				

Practical Related Links (Amruta Virtual Labs / Virtual Lab, An MoE, Govt. of India Initiative / Faculty You Tube Links)

Name of Practical	Link	Name of Practical	Link	Name of Practical	Link
1. Measurement of pH	i) https://vlab.amrita.edu/?sub=3&brch=272&sim=1414&cnt=2 or ii) http://vlabs.iitb.ac.in/vlabs-dev/labs/nitk_labs/Environmental_Engineering_1/experi	2. Determination of Physical parameters – Turbidity, pH and Electrical Conductivity	https://vlab.amrita.edu/?sub=3&brch=193&sim=575&cnt=1	3. Determination of total Hardness	http://vlabs.iitb.ac.in/vlabs-dev/labs/nitk_labs/Environmental_Engineering_1/experiments/determination-of-hardness-nitk/procedure.html

	ments/determination-of-ph-nitk/procedure.html				
4. Determination of Dissolved Oxygen	i) https://youtu.be/ZJJriomHKc & ii) https://youtu.be/yQD-kbRNNIw	5. Determination of alkalinity	http://vlabs.iitb.ac.in/vlabs-dev/labs/nitk_labs/Environmental_Engineering_1/experiments/determination-of-alkalinity-nitk/procedure.html	6. Determination of free CO ₂ .	i) https://youtu.be/fSlcGdf46hg or ii) https://youtu.be/lOuKQqpUmnc
7. Measurement of Relative Humidity	https://youtu.be/14Q3-VtVDAI				

Shri Shivaji Science College, Amravati

E – Contents for Under Graduate Students

Department of _____

B. Sc. Part – I (Semester – II)

Google Classrooms

S.N.	Name of the Teacher	Joining Link	Class Code
1.	Dr. S. P. Ingole		
2.	Dr. K. J. Gawai		

Notes and PowerPoints			Links to Video Lectures		
Topic	Link	Teacher	Topic	Link	Teacher
Ecotone	https://drive.google.com/file/d/1quLtaLk2nevYnI4e3vjid3YBEaxvwKHd/view?usp=sharing	Dr. S. P. Ingole			
Hydrosere	https://drive.google.com/file/d/1NFRoy5qlaBpvD_6QkbgoWRRsgkjhSA-W/view?usp=sharing				
Succession	https://drive.google.com/file/d/104tNhd-60c5gXKj1w84CrOqEhY3qRs0/view?usp=sharing				
Xerosere	https://drive.google.com/file/d/1FhYZgUg5TJ_AA8icmcm-II7yRJ9JFULq/view?usp=sharing				
Unit I Introduction to Ecology	https://drive.google.com/file/d/1Zlb4WbE4Mq1zSgeZWhmz32VmRmwThV-D/view?usp=sharing				

Ecosystem	https://drive.google.com/file/d/17j7eqMucz47KYoz74myJfibqR6nYTL2w/view?usp=sharing				
Productivity of Ecosystem	https://drive.google.com/file/d/1KQS8l2ac9gCMxuGKdHFFavjAMGxXNpUO/view?usp=sharing				
Biodiversity	https://drive.google.com/file/d/1VssGZ0ZOAf8DStOjQXXHPX8ZiR7eg1Nq/view?usp=sharing				
Practical Related Links (Amruta Virtual Labs / Virtual Lab, An MoE, Govt. of India Initiative / Faculty You Tube Links)					
Name of Practical	Link	Name of Practical	Link	Name of Practical	Link
1. Determination of minimum size of quadrat by Species Area-Curve method.	1. https://redox-college.s3.ap-south-1.amazonaws.com/kmc/2020/May/13/OnKptqRZnigZQuvCaMWi.pdf 2. https://youtu.be/2rHYyDV7qRo	2. To study community characters – density, frequency, abundance by quadrat or line transect method.	https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/classXII/biology/lelm214.pdf		
3. Measurement of Primary productivity in aquatic ecosystem by light and dark bottle method	1. https://youtu.be/ZdgGQ5BpK-0 2. https://youtu.be/i3GrIYHQMaE				

B. Sc. Part – II (Semester – III)

Google Classrooms

S.N.	Name of the Teacher	Joining Link	Class Code
1.	Dr. K. J. Gawai		
2.	Mr. V. D. Bute		

Notes and PowerPoints			Links to Video Lectures		
Topic	Link	Teacher	Topic	Link	Teacher
Fundamentals of Env. Chemistry	https://drive.google.com/drive/folders/1wqdCAXx0GXiC0OPNw5FmmV5jzxINJrbP?usp=sharing	Mr. V. D. Bute	Evaluation of Toxicity	https://drive.google.com/file/d/1bI5OBdNXPjN3vCC4ioK7R1_amwVFOtv7/view?usp=sharing	Dr. K. J. Gawai
Renewable Energy Sources	https://drive.google.com/drive/folders/1MXRXQ-awt5LaTUdsmFeKwEVHl4CqHegB?usp=sharing		Chronic Toxicity Test	https://drive.google.com/file/d/1cr-ANZ2dc8KG_HcXxIsT_d9JWoXRasq9/view?usp=sharing	
UNIT II : Chemistry of Biomolecules – (PPT)	https://drive.google.com/drive/folders/1eC4fcSPjLfA3yQhc1yCgZZGCTJ9YeIHi?usp=sharing		Biomagnification	https://drive.google.com/file/d/1F8t53wajHsgUJ2HvKS17dajdxG68NDhT/view?usp=sharing	
UNIT III: Toxicology-I (PPT & Notes)	https://drive.google.com/drive/folders/1sejunrovYmUAnCcvS7XXeGmP3dFGkux?usp=sharing		DDT, BHC, Aldrin	https://drive.google.com/file/d/1EtBoU2WO7NrNrtsLACHxohjJ1YZAb-iL/view?usp=sharing	
UNIT IV : Toxicology-II (PPT)	https://drive.google.com/drive/folders/14NkyUM9bdpX239TBVzKE8gw-53bAjDuP?usp=sharing		Synthetic Detergent	https://drive.google.com/file/d/1k6XfEswU5KtFCgQ7yhz0rx14i2AGJWjd/view?usp=sharing	

Practical Related Links (Amruta Virtual Labs / Virtual Lab, An MoE, Govt. of India Initiative / Faculty You Tube Links)					
Name of Practical	Link	Name of Practical	Link	Name of Practical	Link
1. Paper Chromatography	http://amrita.olabs.edu.in/?sub=73&brch=8&sim=133&cnt=1	2. Estimation of carbohydrates	i.ii. http://blamp.sites.truman.edu/files/2016/01/Fehling-final.pdf & ii. https://youtu.be/Ewe7i1D9ISQ	3. Estimation of proteins by Biuret Method	i) https://youtu.be/-QoDBO8hoCs ii) https://egyankosh.ac.in/bitstream/123456789/71248/1/Experiment-2.pdf
4. Demonstration of immobilization of enzyme.	i) https://youtu.be/M8o5ymKyu2U or ii) https://youtu.be/CSDnJvTufDI	5. To study the activity of amylase.	https://youtu.be/BTh34kr5YBA		

B. Sc. Part – II (Semester – IV)

Google Classrooms

S.N.	Name of the Teacher	Joining Link	Class Code
1.	Dr. K. J. Gawai		
2.	Mr. V. D. Bute		

Notes and PowerPoints			Links to Video Lectures		
Topic	Link	Teacher	Topic	Link	Teacher
Unit I Air Pollution	https://drive.google.com/drive/folders/1aAB3TWeoND3B_Uo5bPuUSXiInp1SrSI7?usp=sharing	Mr. V. D. Bute & Dr. K. J. Gawai			
Unit II Water Pollution	https://drive.google.com/drive/folders/1dTzJTeQnr8lQc96jqt2iOUfWgf2zOc_r?usp=sharing				
Unit III Land Pollution	https://drive.google.com/drive/folders/1jJyDAcaRcuDld2XX6jtIjcq9WNNtFADQ?usp=sharing				
Unit IV Noise Pollution	https://drive.google.com/file/d/161-UB8dSjDuRx-0SZNgT-XKIIluukMEf/view?usp=sharing				
Unit V Radiation Pollution	https://drive.google.com/file/d/1SeIMJ37dWv1QHeeOe67i0Q0b9dpeMJNJ/view?usp=sharing				
Unit VI Case Studies + Global Warming etc.	https://drive.google.com/file/d/1DI-gwwA-6FBvRXIWGI8PFkqjjAA0jWUP/view?usp=sharing				

B. Sc. Part – III (Semester – V)

Google Classrooms

S.N.	Name of the Teacher	Joining Link	Class Code
1.	Dr. S. P. Ingole		
2.	Mr. V. D. Bute		

Notes and PowerPoints			Links to Video Lectures		
Topic	Link	Teacher	Topic	Link	Teacher
Physicochemical Waste Water treatment Processes	https://drive.google.com/drive/folders/1Zj93Q2QaP7KL2nIAk-qXH5T4XNVrajsj?usp=sharing	Mr. V. D. Bute	Urban Planning	https://drive.google.com/file/d/1S47zyvyHL5shApdvKE0jZ3p7jCW7C8h8/view?usp=sharing	Dr. S. P. Ingole
			Personal Protective Equipment	https://drive.google.com/file/d/18s3UOZaNLRIILLTFWBzMb0GNkzuzhxq34/view?usp=sharing	
			Air Pollution Control	https://drive.google.com/file/d/1G9FOIEw0y506pgwOEMuoNe4HBT0zwXa/view?usp=sharing	
			High Volume Sampler	https://drive.google.com/file/d/1BSqnZzvWcgSEfkFvJLK0eIBXNV2NGKKa/view?usp=sharing	
			Urban Planning	https://drive.google.com/file/d/12MuNLwsZsmDsrMialUo	

				rQHTvbIncJRB3/view?usp=sharing	
Students Seminar : https://youtube.com/channel/UCrZtiENjc9-GQmNCaJXc3Qg					

B. Sc. Part – III (Semester – VI)

Google Classrooms

S.N.	Name of the Teacher	Joining Link	Class Code
1.	Dr. S. P. Ingole		
2.	Mr. V. D. Bute		

Notes and PowerPoints			Links to Video Lectures		
Topic	Link	Teacher	Topic	Link	Teacher
EPA 1986	https://drive.google.com/drive/folders/1x4HHoK2LeWpJaltJB5tuNoSE7isJvnn?usp=sharing	Dr. S. P. Ingole & Mr. V. D. Bute			
WLP Act 1972	https://drive.google.com/drive/folders/1lrdXWBcQXpVblJNzcGDWSIx DzpaP PUv?usp=sharing				
Unit I (Env. Education)	https://drive.google.com/file/d/10aUJBfCXmku Vp451WHjrUzvN JzfQKR/view?usp=sharing				
Unit II Mining Environment	https://drive.google.com/file/d/1GrwfE-2E87sDHAIGGP-n9nlkX831Yd0S/view?usp=sharing				
Unit III Wildlife Management	https://drive.google.com/file/d/1XGH-XE2xh-3dZWMy5HGYVRXWXr3i8VE/view?usp=sharing				
Unit IV Role of National & International Organisation in Env. Protection	https://drive.google.com/file/d/14PBLkVs39TyX1nKUOh W0rSczEtMibnE/view?usp=sharing				
Env. Management	https://drive.google.com/file/d/1wUMjOUZG5SEuGk ohNTzaOjsBrBHJklGb/view?usp=sharing				

Sustainable Development	https://drive.google.com/file/d/1u05QQuwzlcZ6YVV/BlK0CwH8xWXXly5W1/view?usp=sharing				
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B.Sc. PART-I, SEMESTER-I
Subject – Environmental Science

Determination of pH of Waste Water Sample

<http://vlab.amrita.edu/index.php?sub=3&brch=272&sim=1414&cnt=1>

Soil Analysis-Determination of pH of Soil

<http://vlab.amrita.edu/?sub=2&brch=193&sim=1549&cnt=1>

To determine chemical parameters such as hardness, alkalinity, and chemical oxygen demand (COD) of water samples.

<http://vlab.amrita.edu/?sub=2&brch=193&sim=1548&cnt=1>

To determine the physical parameters such as turbidity, pH, and conductance of a water sample.

<http://vlab.amrita.edu/?sub=2&brch=193&sim=575&cnt=1>

B.Sc. PART-II, SEMESTER-III
Subject – Environmental Science

Qualitative Analysis of Carbohydrates

[http://biotech01.vlabs.ac.in/bio-chemistry/Qualitative Analysis of Carbohydrates/](http://biotech01.vlabs.ac.in/bio-chemistry/Qualitative%20Analysis%20of%20Carbohydrates/)

Quantitative Estimation of Amino Acids by Ninhydrin

[http://biotech01.vlabs.ac.in/bio-chemistry/Quantitative Estimation of Amino Acids by Ninhydrin/](http://biotech01.vlabs.ac.in/bio-chemistry/Quantitative%20Estimation%20of%20Amino%20Acids%20by%20Ninhydrin/)

Isoelectric Precipitation of Proteins: Casein from Milk

<http://vlab.amrita.edu/?sub=3&brch=63&sim=158&cnt=1>

B.Sc. PART-III, SEMESTER-V
Subject – Environmental Science

Chemical Oxygen Demand of Waste water

<http://vlab.amrita.edu/index.php?sub=3&brch=272&sim=1413&cnt=1>

To determine the physical parameters such as turbidity, pH, and conductance of a water sample.

<http://vlab.amrita.edu/?sub=2&brch=193&sim=575&cnt=1>