

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI**

**Course Schedule: June - November 2024**

**Department : Botany**  
**Name/s of the Faculty : Dr.S.Sathya Bama**  
**Course Title : Ecology and Environmental Biotechnology**  
**Course Code : 19BT/MC/EE54**  
**Shift : I**

<b>Week &amp; No. of hours</b>	<b>Units &amp; Topics</b>	<b>Teaching Methodology</b>	<b>Text &amp; References</b>	<b>Method of Evaluation</b>
Jun 19 – 26, 2024 (Day Order 1 - 6)	1.1 Qualitative Analysis of Plant Communities	Lecture through PPT	Ecology & Environment - Sharma, P. D Environment and Ecology - Deepender, B.	
Jun 27 – July 4, 2024 (Day Order 1 - 6)	1.2 Quantitative Analysis of Plant Communities	Lecture through PPT and Learning by doing	Ecology & Environment - Sharma, P. D Environment and Ecology - Deepender, B.	
July 5 – 12, 2024 (Day Order 1 - 6)	1.3 Sampling of Population – Quadrant, transect, loop and point method  2.1 Terrestrial Ecosystem	Chalk and board followed by plant Community survey practical  PPT and Field work	Environmental Ecology – Bhatia, S. C.  Plant Ecology and Phytogeography – Kumaresan and N. Arumugam	
July 15 – 23, 2024	2.2 Aquatic	Through PPT and	Plant Ecology and Phytogeography –	

(Day Order 1 - 6)	Ecosystem	Practical exposure	Kumerasan and N. Arumugam	
July 24 – 31, 2024 (Day Order 1 - 6)	2.3 Ecological Adaptations – Hydrophytes, Xerophytes and Halophytes	Through PPT and Practical skill	Plant Ecology and Phytogeography – Kumerasan and N. Arumugam	<b>Model preparation on different ecosystem– 10 Marks</b>
Aug 1 – 5, 2024 (Day Order 1 - 3)	3.1 Biomagnification	Lecture cum PPT	Environmental Biology & Toxicology – Sharma, P.D. Ecology and Toxicology – Arumugam, N	
Aug 6 – 10, 2024	<b>C.A. Test – I</b>			

Aug 12 – 14, 2024 (Day Order 4-6)	3.2 Bioaccumulation	Lecture cum PPT	Environmental Biology & Toxicology – Sharma, P.D. Ecology and Toxicology – Arumugam, N	
Aug 16 – 23, 2024 (Day Order 1-6)	3.3 Biotransformation – DDT	Lecture cum PPT	Environmental Biology & Toxicology – Sharma, P.D. Ecology and Toxicology – Arumugam, N	
Aug 27 – Sep 3, 2024 (Day Order 1-6)	4.1 Bioindicators	Lecture cum PPT	Biotechnology – Purohit, S.S. and Mathur, S.K.	<b>Quiz from unit 3 – 15 marks</b>
Sep 4 – 11, 2024 (Day Order 1-6)	4.2 Bioleaching	Lecture cum PPT	Environmental Biology & Toxicology – Sharma, P.D.	
Sep 12 - 20, 2024 (Day Order 1- 6)	4.3 Phytoremediation	Lecture cum PPT	Elements of Biotechnology - Gupta, P.K. Environmental Biology & Toxicology – Sharma, P.D.	
Sep 23 - 26, 2024 (Day Order 1-4)	5.1 Environment Impact Assessment	Lecture cum PPT and Group discussions	Environmental Biology & Toxicology – Sharma, P.D. Ecology and Toxicology by Arumuga N	
Sep 27 – Oct 3, 2024	<b>C.A. Test – II</b>			

Oct 4 – 5, 2024 (Day 5 & 6)	5.2 Environment Quality Monitoring of Air	Lecture cum PPT	Environmental Biology & Toxicology – Sharma, P.D. Ecology and Toxicology by Arumuga N	
Oct 7 - 15, 2024 (Day Order 1 to 6)	5.2 Environment Quality Monitoring of Water	Lecture cum PPT	Environmental Biology & Toxicology – Sharma, P.D. Ecology and Toxicology by Arumuga N	
Oct 16 - 22, 2024 (Day Order 1 to 6)	5.3 Environment Risk Assessment	Lecture cum PPT	Environmental Biology & Toxicology – Sharma, P.D. Ecology and Toxicology by Arumugam N	
Oct 23 - 24, 2024 (Day Order 1 to 2)	<b>REVISION</b>			