



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G.Chidambara Nadar - C.Nagammal Campus
S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

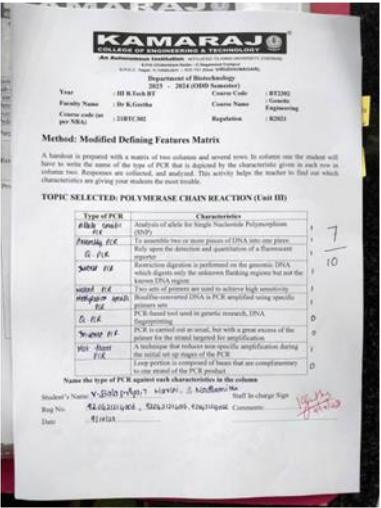
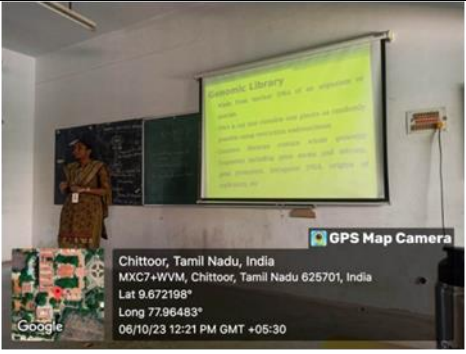
Academic Year 2023-24


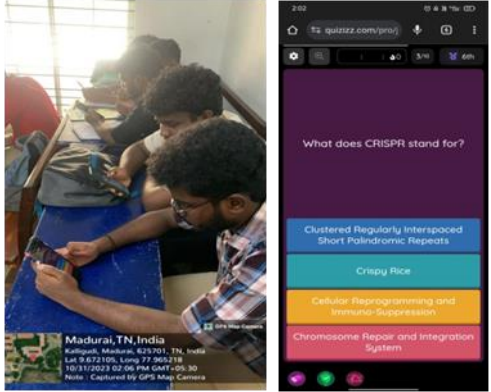

DEPARTMENT OF BIOTECHNOLOGY



ICT Tools/Activity Based Learning followed in Class Room Teaching



S. No.	Name of the Faculty	Subject code & name	ICT tool / ABL	Purpose	Colour photos / images / geotag photos
Department of Biotechnology					
1.	Dr K.Geetha	BT2302 & Genetic Engineering	Flipped Classroom activity	Conceptual learning practice	<p>Activity - Learning about Linkers and Adaptors through Peer learning activity Geetha.K. <geetha@kamarajengg.edu.in> Mon 8/10/23 1:30 PM To: 25UBT <25ubt@kamarajengg.edu.in> Dear Students, Today's Learning activity: Go through the content on Linkers, Adaptors and Homopolymeric tail using the link given below in your study groups (Assignment groups). Link: https://sites.google.com/view/drgeethakaruppasamy-biotech/lecture-notes/repeat-epitaxial-linker/dna-ligase-linkers-adaptors</p> <p>Dr. Geetha Karuppasamy - DNA Ligase, Linkers & Adaptors DNA Ligase, Linkers & Adaptors sites.google.com</p> <p>Once you have completed the activity, we will have a brief discussion at the end to understand the differences between the three methods.</p> <p>Regards, Dr K.Geetha Associate Professor Department of Biotechnology Kamaraj College of Engineering & Technology S.P.G.C. Nagar, K.Vellakulam-625701, Near Virudhunagar, Madurai Dist. Tamilnadu, India Mob: +91 9443116930 Alt Mail: geetgene@gmail.com Get Du@book for Android</p>



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2.	Dr K.Geetha	BT2302 & Genetic Engineering	Minute Paper Activity	To prompts students to reflect on the day's lesson (PCR-General) and provides the instructor with useful feedback.	
3.	Dr K.Geetha	BT2302 & Genetic Engineering	Role Play	To learn the mechanism of action of TaqMan Probes and Molecular Beacons through self involvement	



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4.	Dr K.Geetha	BT2302 & Genetic Engineering	Modified Defining Features Matrix	A handout is prepared with a matrix of two columns and several rows. In column one the student will have to write the name of the type of PCR that is depicted by the characteristic given in each row in column two. Responses are collected, and analyzed. This activity helps the teacher to find out which characteristics are giving your students the most trouble.	 <p>The handout is from Kamaraju College of Engineering & Technology, Department of Biotechnology. It contains a table for 'Modified Defining Features Matrix' with the following content:</p> <table border="1"> <thead> <tr> <th>Type of PCR</th> <th>Characteristics</th> </tr> </thead> <tbody> <tr> <td>Standard PCR</td> <td>Analysis of whole for Single Nucleotide Polymorphism (SNP)</td> </tr> <tr> <td>Real-time PCR</td> <td>To assemble two or more pieces of DNA into one piece</td> </tr> <tr> <td>qPCR</td> <td>Highly sensitive for detection and quantification of a fluorescent signal</td> </tr> <tr> <td>RT-PCR</td> <td>Quantitative technique to perform on the genomic DNA, which detects only the substrate flanking regions but not the target DNA region</td> </tr> <tr> <td>High-resolution melt analysis</td> <td>Two sets of primers are used to achieve high sensitivity</td> </tr> <tr> <td>Hot start PCR</td> <td>Double-stranded DNA is PCR amplified using specific primers sets</td> </tr> <tr> <td>Touchdown PCR</td> <td>PCR is used and used in genetic research, DNA sequencing</td> </tr> <tr> <td>Winged primer PCR</td> <td>PCR is carried out as usual, but with a great excess of the primer for the strand targeted for amplification</td> </tr> <tr> <td>Hot start PCR</td> <td>To enhance that reduces non-specific amplification during the initial set up steps of the PCR</td> </tr> <tr> <td>Loop primers</td> <td>Loop primers are composed of bases that are complementary to the strand of the PCR product</td> </tr> </tbody> </table> <p>Below the table, it asks to 'Name the type of PCR against each characteristics in the column'. A student's name 'V. Srinivasan' and a score of '7/10' are visible.</p>	Type of PCR	Characteristics	Standard PCR	Analysis of whole for Single Nucleotide Polymorphism (SNP)	Real-time PCR	To assemble two or more pieces of DNA into one piece	qPCR	Highly sensitive for detection and quantification of a fluorescent signal	RT-PCR	Quantitative technique to perform on the genomic DNA, which detects only the substrate flanking regions but not the target DNA region	High-resolution melt analysis	Two sets of primers are used to achieve high sensitivity	Hot start PCR	Double-stranded DNA is PCR amplified using specific primers sets	Touchdown PCR	PCR is used and used in genetic research, DNA sequencing	Winged primer PCR	PCR is carried out as usual, but with a great excess of the primer for the strand targeted for amplification	Hot start PCR	To enhance that reduces non-specific amplification during the initial set up steps of the PCR	Loop primers	Loop primers are composed of bases that are complementary to the strand of the PCR product
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5.	Dr K.Geetha	BT2302 & Genetic Engineering	Student seminar	Communication skills and leader ship	 <p>The photograph shows a student seminar in progress. A student is standing next to a screen displaying 'Genetic Library' and other text. A GPS Map Camera overlay is visible at the bottom of the image, showing the location as Chittoor, Tamil Nadu, India, with coordinates MXC7+WVM, Chittoor, Tamil Nadu 625701, India. The date and time are 06/10/23 12:21 PM GMT +05:30.</p>																						


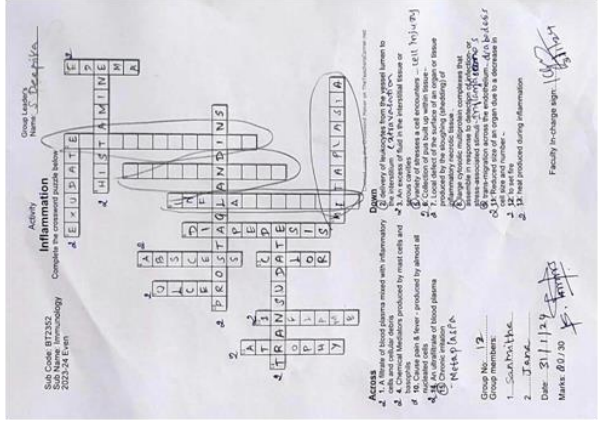
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6.	Dr K.Geetha	BT2302 & Genetic Engineering	Template assembly activity – Chromosome Walking Technique	To learn through practice how chromosome walking is done	
7.	Dr K.Geetha	BT2302 & Genetic Engineering	Quizizz Online tool	Quiz competition to test knowledge level	
8.	Dr K.Geetha	BT2302 & Genetic Engineering	Classpoint.app Online tool Quiz activity	Quiz competition to test knowledge level	



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9.	Dr K.Geetha	BT1702 & Immunology	Peer enabled learning	Enable learning of basic concepts of immunology with the help of peers	
10.	Dr K.Geetha	BT1702 & Immunology	Defining Features Matrix	This activity helps the teacher to find out which characteristics are giving your students the most trouble.	


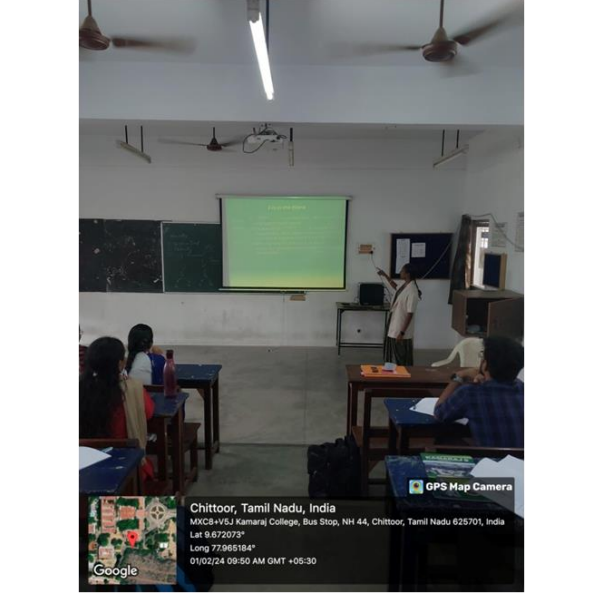
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11.	Dr K.Geetha	BT1702 & Immunology	Student seminar	To improve communication skills and presentation skills	
12.	Dr K.Geetha	BT1702 & Immunology	Role play	To learn through practice by self involvement about complement pathway	

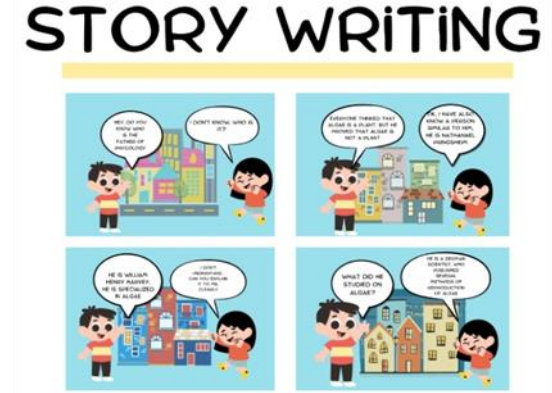

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13.	Dr K.Geetha	BT1702 & Immunology	Crossword Puzzle Activity	Review of Unit 3 content through game based learning tool	 <p>Chittoor, Tamil Nadu, India MXCB+V5J, NH 44, Chittoor, Tamil Nadu 625701, India Lat 9.672086° Long 77.965237° 29/09/23 10:12 AM GMT +05:30</p>
14.	Dr K.Geetha	BT1702 & Immunology	JIGSAW ACTIVITY	Understanding of concept through peer enablement	 <p>Chittoor, Tamil Nadu, India MXCB+V5J, NH 44, Chittoor, Tamil Nadu 625701, India Lat 9.672094° Long 77.965282° 02/11/23 10:37 AM GMT +05:30</p>



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15.	Dr K.Geetha	VBT337 & Life Style Diseases (Honours)	Student Seminar	To improve communication skills and presentation skills	
16.	Dr K.Geetha	BT2352 & Immunology	Guest Lecture – Dr D.Pradiba	Exposure to expert lectures	



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17.	Dr K.Geetha	BT2352 & Immunology	Peer enabled learning through Guest Lecture by Seniors	Peer enabled learning of concepts to encourage students to gain confidence while presenting and for learners to benefit from simple teaching by peers	
18.	Dr K.Geetha	BT2352 & Immunology	Crossword puzzle solving	Problem solving using game based learning tool	


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19.	Dr K.Geetha	BT2352 & Immunology	Role Play	To learn through practice by self involvement	
20.	Dr K.Geetha	BT2352 & Immunology	Student seminar	To improve communication skills and presentation skills	

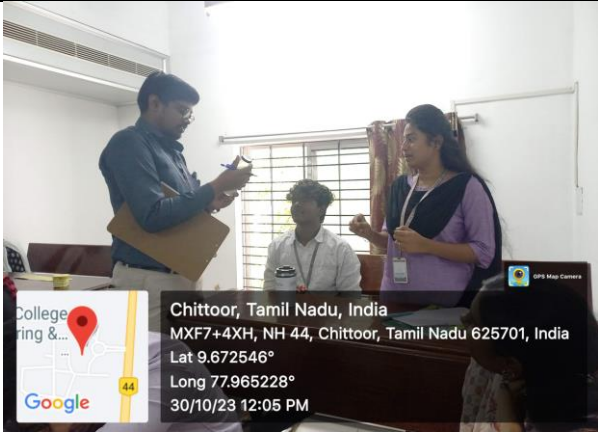
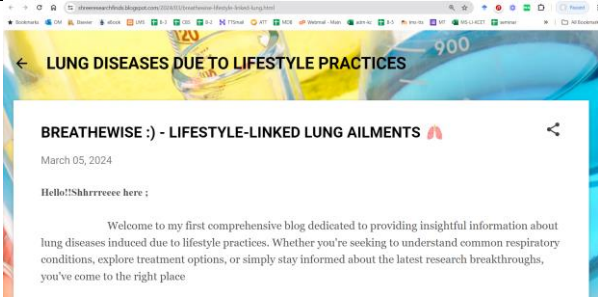
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21.	Dr K.Geetha	VBT333 & Tissue Engineering (PE)	Peer enabled learning through session handled by class student	Peer enabled learning of concepts to encourage students to gain confidence while presenting and for learners to benefit from simple teaching by peers	
22.	Dr K.Geetha	VBT333 & Tissue Engineering (PE)	Quiz & Fill ups	Gamification of concepts	



S. No.	Name of the Faculty	Subject code & name	ICT tool / ABL	Purpose	Colour photos / images / geotag photos
23.	Dr K.Geetha	VBT315 & Algal Technology (Honours)	Story Telling Applet Online Tool	Learning concepts through online story telling app in fun way	
24.	Dr. R. Shyam Kumar	BT2254 Microbiology	Experiential Learning – Real Model demo	Concepts learned through Direct exposure	 <p data-bbox="1331 1019 1885 1141">GPS Map Camera Chittoor, Tamil Nadu, India MXCB+V5J Kamaraj College, Bus Stop, NH 44, Chittoor, Tamil Nadu 625701, India Lat 9.67223° Long 77.986112° 03/02/24 09:51 AM GMT +05:30</p>


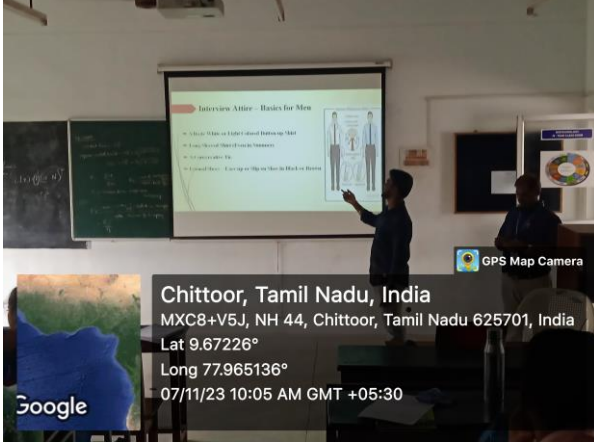
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25.	Dr. R. Shyam Kumar	BT2254 Microbiology	Group Presentation	Concepts learned through – Peer review Presentation	 <p>Chittoor, Tamil Nadu, India MXCB-V5J Kamaraj College, Bus Stop, NH 44, Chittoor, Tamil Nadu 625701, India Lat 9.672283° Long 77.965129° 03/02/24 11:32 AM GMT +05:30</p>
26.	Er.A.Ganga	GE2201 Design Thinking	Logo making	To enable the students to experience the importance of idea generation and refinement through understanding the concepts like <i>Thinking in words, thinking in colours, Thinking in images.</i>	 <p>123456789</p>

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27.	Er. A. Ganga	GE2201 DesignThinking	3D – Model making	To enable the students to vividly understand and apply the various prototype models of their product.	 <p>Chittoor, Tamil Nadu, India MXF7+4XH, NH 44, Chittoor, Tamil Nadu 625701, India Lat 9.672513° Long 77.965096° 12/08/23 12:04 PM GMT +05:30</p>
28.	Er.A.Ganga	GE2201 DesignThinking	Prototyping contest “Thinkathon 2023”	To enable the students to prepare a prototype of a product which is of significant societal impact by applying the course’s various concepts.	 <p>Virudhunagar, Tamil Nadu, India MXC7+PVF, Virudhunagar, Tamil Nadu 626001, India Lat 9.670839° Long 77.96465° 04/11/23 11:21 AM GMT +05:30</p>

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29.	Er.A.Ganga	BT2252 Enzyme Technology	Peer-led lecture	To enable enhance students' engagement in learning process and to promote a collaborative learning where students understand core concepts easily.	 <p>Chittoor, Tamil Nadu, India MXC8+V5J Kamaraj College, Bus Stop, NH 44, Chittoor, Tamil Nadu 625701, India Lat 9.672217° Long 77.965105° 24/02/24 02:40 PM GMT +05:30</p>
30.	Er. Karl Joseph Samuel	BT1701 Downstream Processing	Student Seminar	To improve communication skills and presentation skills	
31.	Er. Karl Joseph Samuel	BT2303 Mass Transfer Operations	Student Seminar	To improve communication skills and presentation skills	

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32.	K.Chitradevi	VBT326 Food Quality Testing and Evaluation	Model Making	To understand real time industry-based experience	 <p>Chittoor, Tamil Nadu, India MXF7+4XH, NH 44, Chittoor, Tamil Nadu 625701, India Lat 9.672546° Long 77.965228° 30/10/23 12:05 PM</p>
33.	Dr.A.Ronaldo Anuf	VBT337 Lifestyle Diseases	Blog Writing	To improve communication skills and presentation skills	 <p>BREATHEWISE :) - LIFESTYLE-LINKED LUNG AILMENTS</p> <p>March 05, 2024</p> <p>Hello!!Shhrrrrrrrr here :</p> <p>Welcome to my first comprehensive blog dedicated to providing insightful information about lung diseases induced due to lifestyle practices. Whether you're seeking to understand common respiratory conditions, explore treatment options, or simply stay informed about the latest research breakthroughs, you've come to the right place</p>

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34	Dr.S.Karthikumar	VBT317 Intellectual Property Rights in Biotechnology	eSign Registration and copyright registration	To provide hands on experience in eFiling of IPR	
35	Dr.S.Karthikumar	BT2255	Demonstration of DNA replication using models	To improve their creativity and time management	 <p data-bbox="1329 1187 1892 1317"> Chittoor, Tamil Nadu, India MXF7+9XG, Chittoor, Tamil Nadu 625701, India Lat 9.673392° Long 77.965788° 23/02/24 03:21 PM GMT +05:30 </p>

S. No.	Name of the Faculty	Subject code & name	ICT tool / ABL	Purpose	Colour photos / images / geotag photos
36	Dr.R.Baskaran	GE 1671 Total Quality Management	Quiz on Kahoot	Recall the topics	 <p>Chittoor, Tamil Nadu, India MXC8+V5J, NH 44, Chittoor, Tamil Nadu 625701, India Lat 9.672322° Long 77.965204° 08/11/23 12:44 PM GMT +05:30</p>
37	Dr.R.Baskaran	GE 1671 Total Quality Management	Seminar	To improve the presentation and communication skills	 <p>Chittoor, Tamil Nadu, India MXC8+V5J, NH 44, Chittoor, Tamil Nadu 625701, India Lat 9.67226° Long 77.965136° 07/11/23 10:05 AM GMT +05:30</p>