

<b>Course title:</b> Bioprocess Engineering and Environmental Biotechnology			
<b>Course code:</b> BBP 165	<b>No. of credits:</b> 3	<b>L-T-P:</b> 30-15-0	<b>Learning hours:</b> 45
<b>Pre-requisite course code and title (if any):</b> Science graduate			
<b>Department:</b> Department of Biotechnology			
<b>Course coordinator:</b> Dr. Souren Paul		<b>Course instructor :</b> Dr. Souren Paul/ Dr. Chaithanya Madhurantakam/ Prof. Ramakrishnan Sitaraman	
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<b>Course type:</b> Elective		<b>Course offered in:</b> Semester 3	
<p><b>Course description:</b>  The course aims to provide students with methods employed in bioprocess engineering and environmental biotechnology. The course is structured to provide the students with fundamental concepts connected to systems metabolic engineering, bio separation, bioprospecting and bioprocessing, biofuels, and bioreactors. This course will offer the students a broad sense of understanding on emerging methods used in food and industrial biotechnology using different case studies.</p>			
<p><b>Course objectives:</b></p> <ol style="list-style-type: none"> <li>1. Acquainting students with concepts applied in the metabolic engineering and synthetic biology.</li> <li>2. Familiarization students with <i>upstream and downstream processing</i> of molecules using bioreactors.</li> <li>3. Providing information on new applications of biotechnology in the food industry.</li> <li>4. Familiarizing the students with methods of microbial waste management and microbial treatment methods.</li> </ol>			