

Programme	BS/BS-ADP	Course Code	BOT-213L	Credit Hours	1
Course Title	<b>Principles of Plant Physiology (Lab)</b>				
<b>Lab Course Contents</b>					
<ul style="list-style-type: none"> <li>• Preparation of percent, molar and normal solutions</li> <li>• Measurement of Transpiration Rate in Plants by Ganong's potometer.</li> <li>• Extraction and quantification of photosynthetic pigments.</li> <li>• Measurement of Carbon Dioxide Evolution by respiring seeds by titration method.</li> <li>• To Categorize C3 and C4 plants through their anatomical and physiological characters.</li> <li>• To regulate stomatal opening by light of different colors and pH</li> </ul>					
<b>Textbooks and Reading Material</b>					
<ol style="list-style-type: none"> <li>1. Taiz, L., Zeiger, E., Møller, I. M., &amp; Murphy A. (2015). <i>Plant physiology and Development</i>, (6<sup>th</sup> ed). Sinauer Associates Inc., Sunderland MA. ISBN: 0-87893-831-1, pp. 700</li> <li>2. Jain, V. K. (2018). <i>Fundamentals of plant physiology</i>. S. Chand Publishing. ISBN: 9-78935-253-3, 343pp.</li> <li>3. Jones, L. L., Ougum, H., Thomas, H., &amp; Waaland, S. (2012). <i>The Molecular Life of Plants</i>. Wiley-Blackwell, ISBN: 978-0-470-80711-2013, pp. 766</li> <li>4. Hopkins, W. G., Norman, P. A., &amp; Hüner. (2008). <i>Introduction to Plant Physiology</i>. 4<sup>th</sup> Ed. Wiley.</li> </ol>					
<b>Suggested Readings</b>					
<ol style="list-style-type: none"> <li>5. Plant physiology and development (<a href="http://6e.plantphys.net/">http://6e.plantphys.net/</a>).</li> <li>6. The Arabidopsis Book (<a href="http://aspb.org/publications/other-aspb-publications/the-arabidopsis-book/">http://aspb.org/publications/other-aspb-publications/the-arabidopsis-book/</a>).</li> <li>7. Plant Physiology (<a href="http://www.plantphysiol.org/">http://www.plantphysiol.org/</a>).</li> <li>8. Annual Review of Plant Biology (<a href="http://www.annualreviews.or/journal.arplant">http://www.annualreviews.or/journal.arplant</a>)</li> </ol>					
<b>Teaching Learning Strategies</b>					
<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Group Discussion</li> <li>• Lab work</li> <li>• Seminars/ Workshop</li> <li>• Assignments</li> </ul>					
<b>Assignments: Types and Number with Calendar</b>					
<ul style="list-style-type: none"> <li>• Lecture Based Examination (Objective and Subjective)</li> <li>• Assignments</li> <li>• Classroom discussion</li> <li>• Quizzes and Tests</li> <li>• Self-assessments</li> </ul>					