

Programme	BS Botany	Course Code	Bot-201	Credit Hours	3
Course Title	Phycology & Bryology (Theory)				
Introduction					
The course is organized to provide an adequate knowledge about different algal and bryophytes groups with their representatives along with their Taxonomy, Morphology, Anatomy, Reproduction and Economic Importance. It is generally aimed to familiarize students with the morphological and systematic knowledge of different algae and bryophytes, and their ecological importance.					
Learning Outcomes					
After completion of the course, the students will: <ul style="list-style-type: none"><li>Understand the concept of algae and bryophytes and their significance</li><li>The micro and macro algal specimens</li><li>Describe the difference between algae and land plants</li><li>Understand morphology, reproduction and systematic position of algae and plants</li></ul>					
Course Contents					
Phycology <ul style="list-style-type: none"><li>Introduction.</li><li>Historical account, Evolution, Zonation, tides, habitats, geographical distribution of economically important algae:</li><li>Criteria for algae classification based on Biochemistry, pigment pattern, plastids, flagellation, movement pattern, cell wall structure, storage products, reproduction and life cycle pattern</li><li>Introduction, general account, classification and economic importance of the following phyla of algae<ul style="list-style-type: none"><li>Cyanophyta</li><li>Chlorophyta</li><li>Charophyta</li><li>Xanthophyta</li><li>Bacillariophyta</li><li>Phaeophyta</li><li>Rhodophyta</li></ul></li></ul>					
Bryology <ul style="list-style-type: none"><li>Introduction and general account of bryophytes, classification, theories of origin and evolution.</li><li>Ecological role in absorption and retention of moisture</li><li>Distribution of bryophytes in Pakistan</li><li>Brief study of the classes: Hepaticopsida, Anthocerotopsida and Bryopsida.</li></ul>					