

# Rajarshi Shahu Mahavidyalaya, Latur

## (Autonomous) Structured Work Plan for Teaching (2021-22)

Details of Classes to be taught

Sr. No.	Class	Name of Assit. Prof.	Subject	Paper
1	M.Sc.I	D.B.Biradar	Botany	PaperVIII: Plant structure ,Development& Reproduction inAngiosperm

Summary of Lesson Plan

Name of Teacher: D.B.Biradar

Class: M.Sc.I(II Semester)

Sr. No.	Subject	Unit and Chapter to be covered	Date	No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
1	<b>Credit: I: Process of Plant Development (15L)</b>	<ol style="list-style-type: none"> <li>1. Plant development- concept, definitions and unique features.</li> <li>2. Processes of development, cell growth, organization of cells, tissues and tissue system to whole plant. Cell- cell interaction.</li> <li>3. Factors for development- intrinsic and extrinsic.</li> <li>4. Vegetative development – structure and organization of seed embryo.</li> <li>5. Seed formation and germination – Embryonal axis- meristems, establishment of seedling organ.</li> <li>6. Phenomenon of development, meristems as dynamic centers of cell regeneration, organ</li> </ol>	02-02-22 To 18-02-22	01  01  01  02  02  03	Students Seminars	

		development, primordium to organ, juvenility – characteristics, transition to adult phase.Coordinated development.				
	<b>Credit: II: Embryological Aspects of Development (15L)</b>	<p>Transition - vegetative to reproductive phase, morphological and histochemical changes in vegetative plant body.</p> <p>Gametophyte development, microsporogenesis and male gametophyte megasporogenesis and female gametophyte</p> <p>Fertilization – process and its significance abnormalities in fertilization</p> <p>.Embryo development - Development of embryo in dicots and monocot, unclassified or abnormal embryos, unorganized or reduced embryo.</p> <p>Polyembryony – concept and classification of polyembryony, special cases and causes of polyembryony, apomixis- concept, categories- agamospermy and vegetative reproduction apospory, parthenogenesis .</p>	21-02-22 To 10-03-22	03  03  03  03		Assignment-I
	<b>Credit III: Molecular basis of plant development[15L]</b>	<p>1. Plant hormones – Biosynthesis, storage, breakdown and transport; physiological effects and mechanisms of action.</p> <p>2. Organization of shoot and root apical meristem , shoot and root development , leaf development and phylotaxi .</p>	11-03-22 To 29-03-22	02 02 02 02 02 02	Guest Lecture	

		<p>3. Molecular basis of plant development - Embryogenesis and seedling development, root, shoot and leaf development, gene expression during transition to flowering and flower development molecular genetics of gametophytes development, expression of cell incompatibility.</p> <p>4. Transition to flowering and flower development-ABCE Model</p>		01		
	Credit IV: Palynology[15L]	<p>1. Palynology: Scope and branches with special suggested readings</p> <p>2. Palynotaxonomy: Pollen morphology and plant taxonomy with suggested readings: to Gymnosperms and Angiosperms.</p> <p>3. Paleopalynology: Principles, microfossil recovery theory and techniques, microfossil groups and oil exploration.</p> <p>4. Aeropalynology: Principles, techniques, pollen analysis, pollen and spore allergyallergicproperties of pollen, pollen calendar and importance.</p> <p>5. Agropalynology: Pollen viability, pollen germination, pollen storage and theirSignificance.</p> <p>6. Melittopalynology: Bee colony, foraging behavior of bees unifloral multifloral honey,application in</p>	30-03-22 To 13-04-22	<p>02</p> <p>02</p> <p>02</p> <p>02</p> <p>03</p> <p>03</p>		Assignment-II

		crop productivity.				
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Teacher

Head

  
Principal  
**Department of Botany**  
**UG, PG and Research Centre**  
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