### PROGRAM OUTCOMES FOR M.Sc. BOTANY

Plant sciences is now an amalgamation of basic and applied science. Plants besides being the The unique capability of plants to trap solar energy and provide food to all cannot be replicated by any system. Conventional studies like plant identification is now being supplemented with molecular techniques like DNA Barcoding. The courses have been designed to benefit all Botany students to study various aspects of plant science including its practical applications. Keeping in mind that these students can take up teaching at different levels, research work in research institutes and or industry, doctoral work, environment impact assessment, biodiversity studies, entrepreneurship, scientific writing relevant topics have been included in the curriculum.

PSO1:	Understanding the classification of plants from cryptogams to Spermatophyte.
	Identification of the flora in field. Study of biodiversity in relation to habitat
	correlate with climate change, land and forest degradation. Application of
	Botany in agriculture through study of plant pathology. Paleobotany to trace
	the evolution of plants.
PSO2:	Understand the ultrastructure and function of cell membranes, cell
	communications, signaling, genetics, anatomy, taxonomy, ecology and plant
	Physiology and biochemistry. To understand the multi functionality of plant
	cells in production of fine chemicals. There wide spread industrial
	applications.
PSO3:	Molecular and Physiological adaptations in plants in response to biotic and
	abiotic stress. Genes responsible for stress tolerance genetic engineering of
	plants.

#### PROGRAM OUTCOMES OF POSTGRADUATE DEGREE PROGRAMS

Students would be benefited with knowledge of core subjects like plant diversity, physiology and biochemistry, molecular cytogenetics and application of statistics etc. which are offered in these subjects Modules on analytical techniques, plant tissue culture and phytochemistry would make them obtain skills in doing research. All the courses in the programme are carefully designed to equip the students for competitive exams like CSIR NET, SET etc. and to write research proposals for grants.

### Application of knowledge

Maintain a high level of scientific excellence in botanical research with specific emphasis on the role of plants. Create, select and apply appropriate techniques, resources and modern technology in multidisciplinary way. Practice of subject with knowledge to design experiments, analyze and interpret data to reach to an effective conclusion.

### Ability to covey the concept clearly

They would identify, formulate and analyze the complex problems with reaching a substantiated conclusion. Logical thinking with application of biological, physical and chemical sciences. Learning that develops analytical and integrative problem-solving approaches.

#### Team work

Students would perform functions that demand higher competence in national/international organizations with sporty spirits and helping each other.

# Honesty and Integrity, Ethics

Student should be aware of ethical issues and regulatory considerations while addressing society needs for growth with honesty.

# Environmental and Sustainability

Best problem-solving skills in students would encourage them to carry out innovative research projects thereby making them to use knowledge creation in depth.

# Life Long learning and motivating others to learn

They would lend the support to other students to grow with them with equal opportunities.

# Global thinking

Knowledgeable discipled students with good values, ethics, kind heart will help in nation building globally.

# **Botany PG Core Course Programme Outcomes**

	MScS	SEM I			MScSEM II				MScSEM III						MScSEM IV					
Programme Outcomes	RJS PGB OTP 101	RJS PG BO TP1 02	RJSP GBOT P103	RJSP GBOT P104	RJSP GBOT P201	RJSP GBOT P202	RJSP GBOT P203	RJSP GBOT P204	RJSPG BOTP 301	RJSPG BOTP 302	RJSPG BOTP PB303	RJSPG BOTP PB304	RJSPG BOTM CB303	RJSPG BOTM CB304	RJSPG BOTP 401	RJSPG BOTP 402	RJSPG BOTP PB403	RJSPG BOTP PB404	RJSPG BOTM CB403	RJSP GBOT MCB 404
Core Competency	<b>~</b>	<b>&gt;</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>								
Critical Thinking	<b>~</b>	<b>~</b>	<b>~</b>	~	~	<b>~</b>	<b>~</b>	<b>~</b>	~	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	~	<b>~</b>	~	~	<b>~</b>
Analytical Reasoning	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>
Research Skills	<b>~</b>	<b>~</b>	<b>~</b>	~	~	<b>~</b>	<b>~</b>	<b>~</b>	~	<b>~</b>	<b>~</b>	<b>~</b>	~	<b>~</b>	<b>~</b>	~	<b>~</b>	~	~	<b>~</b>
Problem Solving	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	~	<b>~</b>	<b>~</b>	<b>~</b>	~	<b>~</b>	<b>~</b>	~	<b>~</b>	~	~	<b>~</b>
Teamwork	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>