

**MASTER OF SCIENCE (M.Sc.)  
IN  
PHYTOMEDICAL SCIENCE AND TECHNOLOGY**

**PROGRAM STRUCTURE AND SYLLABUS  
2019-20 ADMISSIONS ONWARDS**

**(UNDER MAHATMA GANDHI UNIVERSITY PGCSS REGULATIONS 2019)**



**EXPERT COMMITTEE OF BIOSCIENCE (PG)  
MAHATMA GANDHI UNIVERSITY**

2019

## M.Sc. PHYTOMEDICAL SCIENCE AND TECHNOLOGY

(Mahatma Gandhi University Regulations PGCSS2019 from 2019-20 Academic Year)

### 1. Aim of the Program

M.Sc. Phytomedical Science and Technology programme aims to train students in the methods used to analyse and characterise medicinal natural products, to examine the safety and efficacy of currently used herbal medicines, analytical and bioassay methods, and the ethno pharmaceutical uses of plants from traditional systems of medicine.

### 2. Eligibility for Admissions

B Sc in Biotechnology, Pharmacology, Biophysics, Medicine, Veterinary Science, Biochemistry, Chemical Science and other biological sciences under Part III Core Group (Core + Complementary + Open Courses) with not less than CGPA of 2.00 out of 4. BAMS/BHMS/BSMS/B Pharm with not less than CGPA of 2.00 out of 4 are also eligible to apply.

### 3. Medium of Instruction and Assessment

Course of study will be over a period of two academic year under semester system

#### a. Scheme of examination

The examinations for the award of degree consist of theory and practical papers, dissertation and comprehensive viva-voce. There will be examinations at end of each semester for theory and practical courses. Each semester consists of three theory paper and one practical examination for the first three semesters. The fourth semester has project presentation and evaluation and comprehensive viva-voce in addition to one practical examination and **three theory papers which are exclusively based on elective courses.**

#### b. Dissertation

Each candidate should submit a dissertation in four copies of the research project undertaken by him/her at the end of fourth semester for evaluation.

#### c. Comprehensive viva-voce

A comprehensive viva-voce will be held at the end of the fourth semester covering all the courses of the programme taught in the entire four semesters.

### 4. Faculty under which the Degree is Awarded

M.Sc. Phytomedical Science & Technology

### 5. Specializations offered, if any

NIL



## 7. PROGRAMME STRUCTURE

Course Code	Title of the Course	Type of the Course	Hours per week	Credits	Total Credits
<b>FIRST SEMESTER</b>					
BS020101	Microbiology and Plant Molecular Biology	Core	5	5	19
BS020102	Plant Physiology, Biochemistry and Ecology	Core	5	5	
BS020103	Introduction to Traditional and Modern Systems of Medicine	Core	5	5	
BS020104	Laboratory course I	Core	10	4	
<b>SECOND SEMESTER</b>					
BS020201	Principles of Management	Core	5	5	19
BS020202	Medicinal and Aromatic plants: Conservation, Cultivation and Management	Core	5	5	
BS020203	Systematic Botany, Biodiversity and Economic botany	Core	5	5	
BS020204	Laboratory course-II	Core	10	4	
<b>THIRD SEMESTER</b>					
BS020301	Cell Biology and Biotechnology	Core	5	5	19
BS020302	Phytochemistry	Core	5	5	
BS020303	Pharmacognosy	Core	5	5	
BS020304	Laboratory course-III	Core	10	4	

Course Code	Title of the Course	Type of the Course	Hours per week	Credits	Total Credits
<b>FOURTH SEMESTER</b>					
BS830401	<b>Electives</b> <b>Group A</b>	Research Methodology and Science Communication	Elective	5	4
BS830402		Product Development, Quality Control and IPR	Elective	5	4
BS830403		Basics of Plant Tissue Culture	Elective	5	4
BS840401	<b>Electives</b> <b>Group B</b>	Pharmacology, Clinical Trial and Biostatistics	Elective	5	4
BS840402		Business Plan and Entrepreneurship Development	Elective	5	4
BS840403		Transgenic Techniques for Crop Improvement	Elective	5	4
BS850401	<b>Electives</b> <b>Group C</b>	Introduction to Nanotechnology	Elective	5	4
BS850402		Ecology and Ecoinformatics	Elective	5	4
BS850403		Green House Management and Plant Protection	Elective	5	4
BS020401	Laboratory course IV	Core	10	4	23
BS020402	Research Project & dissertation	Core		5	
BS020403	Comprehensive Viva-Voce	Core		2	
		<b>TOTAL</b>		<b>80</b>	

