PRAVARA INSTITUTE OF MEDICAL SCIENCES
(D E E M E D U N I V E R S I T Y)

RULES AND REGULATIONS
FOR THE INDEPENDENT MASTER OF SCIENCE PROGRAM IN MEDICAL BIOTECHNOLOGY

1. General:

These rules and regulations are framed as per the directives of UGC and P.I.M.S. – Deemed University.

2. Faculty:

This course will be under The Faculty of Allied Health Sciences.

3. Nomenclature of Degree:

Master of Science Degree in Medical Biotechnology (M.Sc)

4. Conditions for admission to the independant Master of Science Program In Medical Biotechnology:

4.1 Candidates who have passed the B.Sc. examination with minimum 50% marks in Microbiology/ Biochemistry/ Chemistry/ Zoology/ Botany/ Life Sciences/ Physics with Biophysics specialization from any Statutory University in India or its equivalent.

4.2 Candidates who have appeared for and are expecting their results on or before 31st May of year of admission, of the respective final qualifying examinations.

4.3 Candidates who satisfy 4.1 and 4.2 are eligible to appear for the All India Common Entrance Test (A.I.C.E.T.).

5. Duration of the Program:

Duration of this program will be two calendar year.

6. Selection of Students for the Bachelor and Master of Science - Integrated Degree Program in Medical Biotechnology :

6.1 The selection of the students will be based on the merit of the marks obtained in the A.I.C.E.T. exams conducted by Pravara Institute of Medical Sciences – Deemed University.

7. Program Objective:

7.1 Candidates will be trained in the advance and current art of biotechnology and in the skills of research methodologies, critical evaluation, problem recognition and problem solving in science.

7.2 Candidates will have:

1. Hands-on experience of handling most of the commonly used experimental protocols in molecular biology, genetics, protein and nucleic acid chemistry.

2. Experience of independently designing, executing, observing and interpreting the results of experiments and build a hypothesis.

8. Program Structure:

M.Sc (4 semesters)

SEMESTER I - Comprising 18 units				
Subject Code	Subject	Practical hours/wk	Lecture Hour/wk	Units
BP 101	Cell Biology	5	3	4.5
BP 102	Molecular Biology	5	3	4.5
BP 103	Human Biochemistry	5	3	4.5
BP 104	Animal Tissue Culture	5	3	4.5

SEMESTER II – Comprising 18 units				
BP 105	Human Physiology	5	3	4.5
BP 106	Medical Microbiology	5	3	4.5
BP 107	Pharmaceutical Biotechnology	5	3	4.5
BP 108	Bioinformatics	5	3	4.5

SEMESTER III – Comprising 18 units				
BP 201	Genetic Engineering	5	3	4.5
BP 202	Immunology	5	3	4.5
BP 203	Introduction to Biostatistics	5	3	4.5
ELECTIVES BP-EL1 BP-EL2	Regulation and Patenting Drug Delivery and Targeting	5	3	4.5

SEMESTER IV – Comprising 18 units	
BP 205	Seminars and Project M.Sc. Dissertation Project: Each candidate needs to complete a short dissertation project. Prior to proposing a project, the students must have identified a research topic and a mentor who is familiar with their prospective inquiry and who is willing to provide guidance and oversee the project.

1 unit = 20 hours

9. Eligibility for Appearing for P.I.M.S. Examination

9.1 No students shall be allowed to appear for the Final University Examination unless he / she satisfies the requirement of attendance:

75% Lectures, 100% practical

10. Scheme of Examination

The Examination will be conducted to assess the conceptual understanding of the candidate of the subject matter that was taught in the corresponding semester. Furthermore, whether the candidate can apply his understanding for practical use.

10.1 The Examination will be conducted at end of each semester.

10.2 The students desirous of appearing for the University examination shall submit the application form duly filled along with the prescribed examination fee. Incomplete application forms or application form submitted without prescribed fee or application form submitted after due date will be rejected and student shall not be allowed to appear for the examination.

10.3 **Theory**: Paper for each subject heading – 3 hours - 100 marks

Theory Question Paper pattern:

Total of 7 Questions

First Three Questions are Compulsory

Out of remaining four, solve any two

Diagrams: Color pencils allowed

10.4 **Practical:** One long experiment of 3 hours - 50 marks .

Two Short experiment, each of 1.5 hours (25 marks each) - 50 marks

10.5 **Viva Voce:** based on practical and theory - 50 marks.

10.6 **Internal:** Seminar - 15 marks

Internal exam - 15 marks

Journal - 10 marks

(based on timely completion, representation, and results).

Overall conduct - 10 marks

(based on discipline, atitude, initiative).

11. Rules of Passing

11.1 The candidates must secure a minimum of 50% marks in each head of passing in the University Examination and 50% marks in the aggregate; i.e. in the University examination, the candidate should secure 50 marks in the theory paper and 50 marks in the practical.

11.2 The gradation will be as follows:

75% marks or more = pass with distinction or A+
60% - 74% marks = pass with first class or A
55% - 59% marks = pass with second class or B+
50% marks – 54% = pass with second class or B
less than 50% = fail.

11.3 Any candidate who fails in two or more subject headings by end of the two semester in an academic year, will not be permitted to attend the ensuing semester.

11.4 11.4 The candidate declared fail as per section 11.3 will have to clear the relevant subject headings before he /she is allowed to attend the ensuing semester.

12. Detailed Syllabus

Appended