

M.Sc. Microbiology Syllabus as approved in BOS Meeting held on 04.06.2022

**Veer Bahadur Singh Purvanchal University
Jaunpur**



**Ordinance and Syllabus for
M. Sc. in Microbiology
[Two-year (Four semesters) postgraduate degree program]**

**Faculty of Science
Under Choice Based Credit System (CBCS)
As per the guidelines of NEP-2020
w.e.f. 2022-23 (Session)**

**V.B.S. PURVANCHAL UNIVERSITY, JAUNPUR
Department of Microbiology
Faculty of Science**

1

Navin Kuma
11/6/2022

Vision

The Department is dedicated in providing the quality education, through both lectures and practical sessions, necessary to meet the needs of this growing field. The main objective and focus of the department are to guide and impart innovative education at par with national and international standards.

Mission:

- To be a world-class hub for interdisciplinary education and research programs in microbiology.
- To promote high-impact education and innovative research in a diverse and inclusive environment by exploring fundamental questions in microbiology.
- To provide outstanding education in microbiology to post-graduate and professional students.
- To expand interdisciplinary and multidisciplinary collaborations that are recognized nationally and internationally for their innovative impacts on microbiology.
- To contribute to the mission of the University by engagement in outreach to enhance community understanding of the importance of microbiology.
- To attract and retain a diverse, talented and dedicated group of faculty and staff to advance their careers through collaborative efforts in education, research, and service.

[Signature]

*Narayan
11/6/2022*

V.B.S. PURVANCHAL UNIVERSITY, JAUNPUR
Ordinance governing two-year (four semesters) postgraduate degree program
M. Sc. in Microbiology (Faculty of Sciences)
Under Choice Based Credit System (CBCS)
w.e.f. 2022-23 (Session)

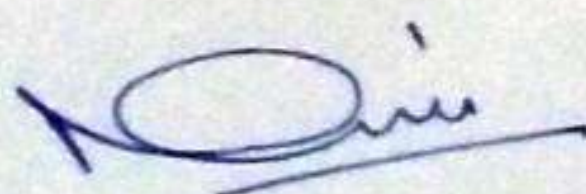
The following ordinances have been framed governing the admission, course structure, examination and other allied matters relating to the two-year (four semesters) postgraduate degree programme (M.Sc.) in Microbiology being offered by V.B.S. Purvanchal University.

A. ADMISSION AND EXIT

1. All matters relating to admission to this course shall be dealt with by the Admission Committee constituted for the purpose by the University.
2. The M.Sc. Microbiology course is open to science graduates (with 3 year undergraduate degree of new or old system) with minimum of 50% of marks, from a recognized University (45% in case of SC/ST). Those who are appearing in final examination of B.Sc. (Biology/Life Sciences/BVSc & AH/MBBS/B. Pharm and related subjects of Life Science) degree can also apply for admission and shall be eligible to appear in the Entrance Test for admission but they will have to produce a proof of being a graduate at the time of admission. However, students of VBS Purvanchal University can be given provisional admission by the Admission Committee in case of delayed results.
3. Admission in M.Sc. Microbiology course will be based on the entrance test or merit as per the rules of the university.
4. The intake of students in this programme shall be fixed by V.B.S. Purvanchal University. The admission to M.Sc. courses shall be made through a merit based on Written Test conducted by VBS Purvanchal University Combined Admission Test (PUCAT). The reservation norms for admission shall be guided by State Government/ University notification issued from time to time.
5. On selection the candidates shall deposit the fees prescribed for the purpose to get his/her admission confirmed within the time period fixed by the Admission Committee of the Department. If a candidate fails to do so his/her admission shall be automatically cancelled and the seat falling vacant shall be offered to other candidates as per the merit/category. However, matter concerning fees of candidates under SC/ST category would be governed by Govt. Order; as such there is no provision of fee concession/exemption/refund.
6. Admission to M.Sc. course cannot be claimed by any candidate as a matter of right. The Admission Committee shall have power to refuse, reject or cancel any admission if it possesses sufficient reasons to do so.
7. **Student Mentor:** Every student will have a member of faculty of the Department as his/her student advisor. All teachers of the department shall function as Student Mentor (Advisors). The Student Advisor will advise the students in choosing Elective courses and offer all possible student support services

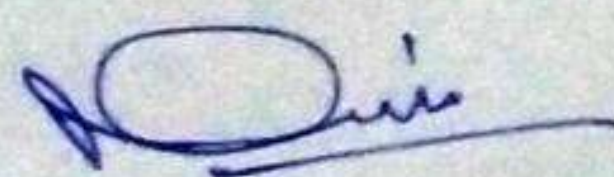
B. COURSES OF STUDY AND EXAMINATION

1. Postgraduate program (M. Sc. Microbiology) will be conducted in CBCS (Choice Based Credit System) and semester system
2. There will be 4(four) theory papers of main subject and 1 (one) practical paper (all four credits) in one semester, thus in a semester there will be 20 credits of papers of main subject. 40(forty) in 1(one) year that would be 80(eighty) credits in 2(two) years
3. All four theory papers are compulsory in the first semester.
4. In the second and third semester, the student can choose one paper based on the optional paper (specialization), according to his interest and on the basis of the resources available in the university /college.



Naveen Anand
11/11/2022

5. All the papers in the fourth semester are optional papers based on specialization from which the student can choose any four theory papers as per his/her interest.
6. In the first year of post-graduation, the student will have to take only 1 minor elective paper from any other faculty (a subject other than the main subject). This paper will be of 4 (four) credits
7. To conduct the M.Sc. (Microbiology) programme systematically and within a time bound frame, the concerned Department shall draw up an "Academic Calendar" in the beginning of academic session.
8. A candidate admitted to the M.Sc. course shall pursue a regular course of study in all the four semesters of the course and attend a minimum of 75% of the classes held to be eligible to appear in the semester examinations.
9. If a student fails to attend requisite classes in a semester due to illness, he/she may be given relaxation of 15% attendance (10% at the level of Vice-Chancellor and 5% at the level of Head of Department on production of medical certificate.
10. Semester examinations of the M.Sc. course shall be conducted by way of theory papers, practical and industrial training/surveys/research project. Each theory core and elective paper will be of 100 marks out of which 75 marks shall be allocated for semester examination and 25 marks for internal assessment. The pattern of question papers for theory examinations will be as per the University rules
11. Internal assessment is an integral part of the course and is compulsory for all students. Academic performance of students is evaluated by Continuous Internal Assessment (CIA) that includes day to day performance, attendance, home Assignment periodic tests, seminar presentation; subject's quizzes class discussion, etc.
12. The responsibility of evaluating the internal assessment is vested on the teacher(s) who teaches the course.
13. One practical (4 credits) examination shall be conducted which will be assessed jointly by the teachers of the department and the external examiner nominated by the university at the end of each semester out of 100 marks.
14. Ordinarily, the semester examinations shall be held in December and May.
15. Research Project in Post Graduate Program: In the first and second year of post-graduation, the student will have to do a major research project.
16. This research project can also be interdisciplinary / multi-disciplinary. This research project can also be in the form of industrial training / internship / survey work etc.
17. The research project will be done under the guidance of a teacher supervisor; co-supervisor can be taken from any industry/company/technical institute/research institute.
18. Undergraduate (including research) and postgraduate students will be required to undertake a research project of four credits (4 hours per week) in each semester.
19. Students will submit the final report (project report/dissertation) of the research project carried out in both the semesters at the end of the year, which will be assessed jointly by the supervisor and the external examiner nominated by the university at the end of the year out of 100* marks. Thus, there will be a total of 8 credits of this exam. The students have to submit a project report/dissertation/technical report in bound form duly certified by the supervisor. The evaluation of the project/dissertation/technical will be done through presentation and viva voce examination of the student.
20. If a student publishes any of his research papers in this research project in the UGC-CARE listed Journal and published during the program, then he can be given additional marks up to 25 in the evaluation of the research project (out of 100). The maximum received will be 100.
21. Most of the grades will be marked on the marks obtained in the research project and they will also be included in the calculation of CGPA.
22. It will be necessary to take the exam for credit validation. Credit will be incomplete without the examination.



Naveen Arora
11/11/2022

23. If a student qualifies for the examination on the basis of attendance in the class, but is not able to give the examination due to any reason, then he/she can appear for the qualifying examination in the next time, he/she will not need to take classes again.
24. Matters pertaining to the syllabi and conduct of examination shall be dealt with by the Board of Studies (BOS) constituted by the Vice-Chancellor.
25. The BOS shall recommend the panel of paper setters/examiners to the Vice-Chancellor. After getting approval from the Vice-Chancellor, the appointment letters shall be issued to the concerned paper setters/examiners by the Registrar/Controller of Examination of Purvanchal University.
26. Papers for theory examination in sealed covers shall be handed over/sent by registered post to the Registrar/Controller of Examination by the Examiners. Controller of Examinations/Technical Cell will ensure the printing of papers and fair conduct of the examinations.
27. The question papers shall be moderated before examination by a committee consisting of the Head and two senior most teachers of the department and the teacher of concerned paper. The Center Superintendent shall ensure implementation of this provision.
28. After the examinations, Controller of Examinations/Technical Cell for campus courses shall ensure the evaluation of the answer books and declaration of results of semester examinations within a reasonable time so as to enable the department to adhere to the Academic Calendar.
29. Practical examinations of semester I, II, III and IV shall be conducted by one internal and one external examiner. Similarly, in the Second and fourth semester project/dissertation/technical report and presentation carrying 100 marks shall also be evaluated jointly by external as well as internal examiner(s)..
17. For appearing in semester examinations each student shall have to deposit a prescribed examination fee along with a duly filled examination application form; separate fees will also be charged for back and improvement papers. For SC/ST candidate relaxation in examination fees applicable as per Govt. Order. He/she has been a student of good conduct.
18. The students of M.Sc. course shall be examined in the subjects in accordance with course curriculum given at the end of ordinance.

C. RESULTS, PROMOTION AND IMPROVEMENT

20. If a student wants to leave after passing the first year of post-graduation by earning a minimum of 52 credits, then he will be awarded a bachelor's (including research) degree. After earning a minimum of 52+48 credits in the first and second year of post-graduation, the student will be awarded a master's degree in that main subject of that faculty.
21. The results of M. Sc. 1st, 2nd and 3rd semester examination shall be declared as pass who scores at least 36% of marks in each paper separately and 40% in aggregate. About 50% of the paper setting would be internal.
22. If a student fails in more than 4 papers in an academic year he/she will not be promoted to the next year. Such student should be re-admitted as Ex. Student with coming batch and their seat will be additional.
23. Students, who failed in 4 or lower number of papers in the academic year will be awarded 'back' and given two chances to reappear and pass in respective paper(s) in next year and the following year with regular semester examination. There will not be any supplementary/special examination for back/improvement papers. However, all such papers must be cleared within two years ending fourth semester
24. In order to pass the 2-year M.Sc. (Microbiology) course, the students must pass both the year separately. The final result shall be declared on the basis of the combined marks secured by a candidate in all the four semesters in the following categories. If a student has secured pass marks in aggregate in a semester but has failed in a maximum of two papers a provision is made to grant him a maximum of 3 grace marks.



Nandan Anwar
11/11/2022

25. Student securing highest number of marks during the course in the first attempt will be awarded the University Gold Medal for the same.

Passed : **40% and above**

Second Division : **45% and above but less than 60%**

First Division : **60% and above**

26. Conversion of Marks into Grades: As per University rules

27. Grade Points: Grade points shall be determined as per the Grade point table as per University Examination rule.

28. CGPA Calculation: As per University Examination rule.

Note: Suggested Continuous Internal Evaluation (CIE) methods Continuous Internal Evaluation shall be based on Class test, presentation along with assignment and class interactions. Marks shall be as follows.

- Total marks: 25
- 10 marks for Test
- 10 marks for presentation along with assignment
- 05 marks for Class interactions



Naveen Arora
11/6/2022