



*A degree awarding institution registered with
the Higher Education Commission, Mauritius*

JSS Academy of Higher Education and Research (Mauritius)

**Droopnath Ramphul Avenue, Bonne Terre Vacoas,
Republic of Mauritius**

Bachelor of Pharmacy (B Pharm)

Programme Handbook

January 2024 Curriculum

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PROGRAMME HANDBOOK

Bachelor of Pharmacy

A. Programme Information and Background

Pharmacy is rapidly becoming one of the most promising careers in the healthcare sector. Pharmacists are responsible for drug research, development, preparation, and dispensing, as well as the examination of their effectiveness and side effects. A career in pharmacy, like any other medical profession, allows individual to work for the well-being of patients while simultaneously providing a plethora of opportunities for advancement.

Bachelor of Pharmacy or B Pharm is a four-year undergraduate degree course in the field of pharmacy education. B Pharm Pharmacy program of JSSAHERM is well balanced program in both (Pharmaceutical Sciences and Pharmacy Practice) the sectors of Pharmacy. This offered program integrates the main strands of the chemical and biological sciences, which relate to medicines and combines these sciences with all the related aspects of health care for the benefit of patients. Pharmacy is also concerned with the provision of evidence-based advice to patients and the public on general health matters.

Pharmacists are scientists in the health care community, bringing together physical, biological, clinical, social and behavioral sciences in relation to medicines and their usage. The breadth and multi-disciplinary character of the pharmacy degree, along with the ever-changing nature of pharmaceutical services gives a central role to pharmacists for research into the discovery, characterisation, formulation, administration and therapeutic activity of medicines. Pharmacists are therefore expected to play a leading role in research into the safe and economically responsible use of medicine in practice.

JSSAHERM received the approval of Pharmacy program in January 2020 and started its first batch of B Pharm program in August 2020.

JSSAHERM received renewal of approval for B Pharm program with a revised curriculum to be offered from January 2024.

The JSSAHERM is committed to provide the trained “Practice Ready” pharmacist workforce to join the healthcare setup and contribute to the health care needs of the country.

The programme is also meant for the students coming from the Indian On and African region including countries such as South Africa, Zambia, Zimbabwe, Uganda, Kenya, Ghana, Ethiopia, Tanzania, Rwanda, Nigeria, Namibia, India, Sri Lanka, and Nepal.

B. Programme Aim

The aim of the program is to create “Practice Ready” pharmacist with knowledge, skills and competencies in pharmaceutical sciences and pharmacy practice in a rational, integrated and progressive manner, thus enabling graduates to provides quality pharmaceutical care to the society.

C. Programme Objectives

The objectives of the program are to;

- Produce pharmacy graduates with strong fundamental concepts and high technical competence in pharmaceutical sciences and pharmacy practice, who shall be able to use these tools in pharmaceutical industry and/or health care sector where ever necessary for success.
- Provide students with a strong and well defined concepts in the various fields of pharmaceutical sciences viz., pharmaceutics, pharmaceutical chemistry, pharmacology, pharmacy practice and pharmacognosy according to the requirement of pharmaceutical industries, community and hospital pharmacy and also to develop a sense of teamwork and awareness amongst students towards the importance of interdisciplinary approach for developing competence in solving complex problems in the area of Pharmaceutical Sciences and Practice.
- Promote the development of trained human resource in Pharmaceutical Sciences and Pharmacy Practice for dissemination of quality education with highly professional and ethical attitude, strong communication skills, effective skills to work in a team with a multidisciplinary approach.
- Generate potential knowledge pools with interpersonal and collaborative skills to identify, assess and formulate problems and execute the solution in closely related pharmaceutical industries.
- Train the students to contribute towards health care system and counseling for prophylaxis and prevention of diseases.
- Encourage the students to participate in life-long learning process for a highly productive career and to relate the concepts of pharmaceutical Sciences and pharmayc practice

towards serving the cause of the society.

Some prominent employment opportunities

- Pharmacist – Hospital, Community and Clinical
- Pharmaceutical Industry
- Scientist (Research field)
- Teacher (Junior Lecturer)
- Quality Control Officer
- Clinical Research professional
- Drug regulatory authority
- Marketing professional
- Medical Scripting

D. Overall Programme Learning Outcomes

The overall competency domains, professional competencies and program learning outcomes are;

| Domain no. | Domains | Competency Statements | Program Learning Outcomes |
|-------------------|-------------------------------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | FOUNDATIONAL KNOWLEDGE | Acquire Knowledge | PLO1; Learner: Acquire and develop adequate scientific knowledge and understanding of the core and basic information associated with the pharmaceutical sciences, social/behavioral and clinical sciences. |
| 2 | PHARMACEUTICAL PRODUCT DEVELOPMENT | Development of products | PLO2; Product developer: Developing the knowledge of manufacturing formulation and quality control of various pharmaceuticals and cosmetic products in the form of powders, tablets, capsules, parenterals, suspensions, emulsions, creams, lotions and aerosols etc. |

| | | | |
|---|---------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | ESSENTIALS OF PRACTICE AND CARE | Medication management and use | PLO3; Manager: Manage Pharmacy, medication and patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems. |
| | | Health and wellness | PLO4; Promoter: Designing educational strategies for individuals and communities to manage and prevention of chronic diseases and improve health and wellness, healthcare delivery, interventions etc. |
| | | Population-based care | PLO5; Provider: Assessment of the healthcare status and requirements for a targeted patient population. Developing and providing an evidence-based approach that considers the cost, care, access, and satisfaction of a medication in targeted patient population to maximize health. |
| | | Patient-centred care | PLO6; Caregiver: Provide patient-centred care as the medication expert, interpret evidence and patient data, implement patient care plans, monitor and adjust plans and document activities. |
| 4 | APPROACH TO PRACTICE AND CARE | Problem-Solving | PLO7; Problem Solver: Explore and prioritize potential strategies, and design, implement, and evaluate a viable solution in health issues, safety and legal issues. And interpret, manage, and prevent problems and make appropriate decisions. |
| | | Educating patients and audiences | PLO8; Educator: Educate audiences and patients by determining the most effective and enduring ways to impart information about |

| | | | |
|---|----------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | medication and dosage. |
| | | Interprofessional collaboration | PLO9; Collaborator: Collaborate with physicians, nurses and hospitals in the management of, and health of all patients and provide information related to medication and adverse effects. |
| | | Communication | PLO10; Communicator: Communicating effectively with community and interacting with an individual, group or organization. Actively listening the questions to gather information and using available technology and other media to assist with communication. Communicate positively, confidently and clearly. Developing professional documents pertinent to organizational needs (e.g., monographs, policy documents). Documentation of medication, prescription information, patient care activities clearly and accurately using appropriate medical terminology. |
| 5 | PERSONAL AND PROFESSIONAL DEVELOPMENT | Self-awareness | PLO11; Self-aware: Introspection and reflection on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth. |
| | | Leadership | PLO12; Leader: Demonstrate responsibilities for creating and achieving personal and professional goals and priorities. Effective planning and managing time, organizing work, and team- building capacities required for the fulfillment of practice and leadership role to |

| | | | |
|--|--|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | facilitate improvement in health and well-being |
| | | Research, Innovation and Entrepreneurship | PLO13; Researcher, Innovator and Entrepreneur: Encompassing in innovative activities by using Research skills and creative thinking to provide solutions in accomplishing professional goals. Developing new ideas and processes to improve quality or overcome barriers to advance the profession. Capable of decision making when confronted with novel problems or challenges. Assessing personal strengths and weaknesses in entrepreneurial skills. |
| | | Ethics and Professionalism | PLO14; Professional: Development of professional and ethical responsibilities as per pharmaceutical jurisprudence and swear by a code of ethics of regulatory bodies in relation to the community and act as an integral part of the health care system. Performance of behaviours and values that are consistent with the trust given to the profession by patients, other healthcare providers, and society. Maintaining integrity, trustworthiness, flexibility, and respect in all interactions. Delivering patient-centered care in a manner that is legal, ethical, and compassionate. Engaging in the profession of pharmacy for its continual improvement with a life-long learning capacity. |

| | | | | | | | | | | | | | | |
|------|--------------------------------|---|--|---|---|---|---|---|---|---|---|--|---|---|
| | Practice School | | | 3 | 3 | 3 | 3 | 3 | | | | | 2 | 3 |
| VIII | Biostatistics and Research | 2 | | | | | | | | | | | 2 | 1 |
| | Social and Preventive Pharmacy | | | 3 | 3 | 3 | 3 | 3 | | 3 | | | | |
| | Elective 1 | | | | | | | | | | | | | |
| | Elective 2 | | | | | | | | | | | | | |
| | Project work | | | | | | 3 | 2 | 2 | 2 | 3 | | 3 | 3 |

The school has used a gradient form of mapping and the details are as follows,

1: The course is moderately related to the respective PLO, 2: The course is related to respective PLO, 3: The course is fully related to the respective PLO.

E Entry Requirements

E.1 Mauritian Nationality

E.1.1 General Entry Requirements

JSSAHERM will follow the admission requirements of HEC for tertiary education level programmes. The Faculty of Health Sciences, on a case-to-case basis, will make admission decisions.

Candidates must have:

Either

(i) Pass in 3 Subjects at A-level and 1 subject at subsidiary level of Higher School Certificate Examination;

Or

(iii) Pass in 3 Subjects at A-level at the London General Certificate Examination;

Or

(iv) A qualification equivalent to the above.

E.1.2 As per the Pharmacy Council Act 2015

Any person who applies for registration as pharmacist or preregistration trainee, after having

completed a degree, diploma or equivalent qualification in the field of Pharmacy, should produce a certificate stating that he has passed at one sitting any three subjects at Advanced (A) level or its equivalent, with a minimum of 21 Points, based on the regulations of the Pharmacy Council of Mauritius which is “As per Section 18(1)(b) of the Pharmacy Council Act 2015, the entry requirements for the B Pharm must be any 3 subjects at Advanced (‘A’) level (or its equivalent), with minimum of 21 points at one sitting”

E.2 Overseas Candidates

For foreign candidates the entry requirement should be as prescribed by the Pharmacy Council of the home country of the prospective student.

Overseas candidates whose first language is not English and who do not hold a degree or equivalent professional qualification taught in English will be required to produce evidence of their competence in English.

E.3 Program Entry Requirements prescribed by JSSAHERM

‘A’ level in any science subject as approved by Board of Studies

F. Fees Structure

| Programme Pharm D | MUR | USD |
|------------------------------------|----------------|---------------------|
| Tuition fee per annum (F/T) | 250,000 | 6000 |
| Other Fees | | Amount (MUR) |
| Application Fees | Non-refundable | 1,000 One off |
| Registration Fees | Non-refundable | 5,000 One off |
| Administrative Fees | Non-refundable | 10,000 per annum |
| Library Fees | Non-refundable | 5,000 per annum |
| Library Deposit | Refundable | 5,000 One off |
| Laboratory Fees | Non-refundable | 5,000 per annum |
| Examination Fees | Non-refundable | 5,000 per annum |
| Marks card fees | Non-refundable | 1,000 per annum |

| | | |
|------------------|----------------|-----------------|
| Convocation Fees | Non-refundable | 2,000 One-off |
| Sports Fees | Non-refundable | 1,000 per annum |

Hostel Fees:

| | | |
|-----------------------|----------------|------------------|
| Accommodation Charges | Non-refundable | 45,000 per annum |
| Food Charges | Non-refundable | 40,000 per annum |
| Caution Deposit | Refundable | 15,000 One Off |

Refund Policy:

Tuition fees are not refundable except in special circumstances on a limited number of grounds, which are as follows:

1. A refund of full tuition fees paid is considered for students having for some reasons made the wrong choice or who realise that they are unable to cope with the regime of higher studies, provided that the application for refund is made to the Management within the first ten working days of the start of the programme.
2. A refund of 50% of the full semester tuition fees is considered on medical, family or other acceptable grounds if full fees for the semester have been paid, provided the request is received before the fifth week of the semester. No refund will be made if a lesser amount has been paid.

There is no refund for the accommodation charges. Food charges may be refunded on a pro rata basis by giving one-month notice. Caution deposit is refundable at the end of the stay.

G. Programme Mode and Duration

Full-Time: Minimum 4 years (8 Semesters) – Maximum 6 years (12 semesters)

| | | |
|-------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| (i) | Delivery mode | Full Time |
| (ii) | Delivery Type | Face to face/contact Face to face and distance with an online learning platform |
| (iii) | Duration (minimum and maximum) in terms of years, and contact hours per year | Full time: Minimum 4 years– Maximum 6 years |
| (iv) | Number of semesters | Full time: Minimum 8 Semesters – Maximum 12 Semesters |

H. Teaching and Learning Strategies

The programme is consist of a wide variety of teaching methods, including lectures, tutorial

and practical sessions, individual or group projects, assignments, presentations, workshops, seminars and case studies. The programme is also consisting of class tests, structured discussions, self-development activities, hospital placements and ward rounds. Self-learning is the key feature of the programme, enabling students to explore, investigate and research in various issues related to pharmacy.

Positive learning outcomes reflect an interplay between the teaching activities and learning environment provided by JSSAHERM and the skills, knowledge, attitudes and behaviour of its students. The institution has brought forward a few principles to help ensuring that the quality of teaching and learning is always respected.

The following principles aim to guide excellence in learning and teaching practices, while recognising that effective learning and teaching involves a partnership between students and the institution:

- a) Creating an engaging, motivating, and intellectually stimulating learning environment and experience.
- b) Encouraging the spirit of critical inquiry and creative innovation informed by current research.
- c) Emphasising the importance, relevance, and integration of theory and knowledge with professional practice to develop solutions to real world issues.
- d) Providing learning experiences that develop inter-culturally capable graduates who can make a difference as socially and ethically responsible global citizens.
- e) Valuing and recognising individual and cultural diversity through the provision of an inclusive context of support and respect for all students.
- f) Enhancing student engagement and learning through effective curriculum design, pedagogy and assessment strategies.
- g) Continuously improving teaching practice through academic staff professional development, and critical reflection informed by a range of evaluation approaches.;
- h) Conducting evaluation (feedback) exercises, through which the students will be encouraged to give their view and rate the teaching quality of each lecturer – The feedback survey forms would be analysed and reports would be generated. Appropriate

measures would be taken to improve weaknesses and shortcomings; All feedback survey forms would be securely kept for verification and consultation as and when required; The feedback exercise will be conducted every semester before the end of courses to ensure that students' views are appropriately taken care prior to their sitting for examinations;

- i) Conducting Performance Appraisal exercises for all teaching and non-teaching staff members; This exercise allows the institution to find room for improvement, evaluate the staff's opportunities for promotion and to channel staff members for training and development as learning is an on-going process not only students but for lecturers and other staff members also.

JSSAHERM considers feedback from students as vital and continuously engaged in getting the student feedback form for each module being taught every semester. The criterion under which a program is evaluated is as follows:

- a) Knowledge of the lecturer related to the subject;
- b) Coverage of the syllabus – Was the syllabus covered completely and thoroughly or was any topic not covered;
- c) Delivery of lecturer or demonstration for practical;
- d) Discipline in class (theory and practical)–Did the lecturer have control over his batch of students;
- e) Interaction in class – Did the lecturer invite students to participate in class?
- f) Audibility of voice – Did the lecturer express himself clearly and could all students hear / understand when he/ she explained?
- g) Explanation and emphasis on important points – Was the subject being explained with respect to the syllabus and were important points highlighted? Did the lecturer make use of relevant examples to support the explanations?
- h) Evaluation of subject notes or learning materials being provided to students–clarity, conciseness and relevance;
- i) Infrastructure being given for the subject being taught – classroom quality (clarity of white board, aeration, LCD and multimedia projector equipments, etc)
- j) Evaluation of practical sessions – laboratories, equipments, safety, knowledge of the

lecturer, etc;

- k) Information being given students – Did the lecturer provide students with information that were related to only the subject matter or did they provide a broader picture of the subject for more learning.
- l) Were students motivated to attend conferences/ seminars / industrial training to enhance their knowledge?

The feedback exercise is being carried out anonymously meaning that students do not divulge their identities while filling the form. Once the feedback exercise has been carried out, the administrative department works on each form and compile the data and submit same to the Head of Faculty. The latter analyzes the information and call the lecturers to inform them of the evaluation of the module and work on ways to improve effectiveness and efficiency of lecturers and implementation of new ways of teaching and learning.

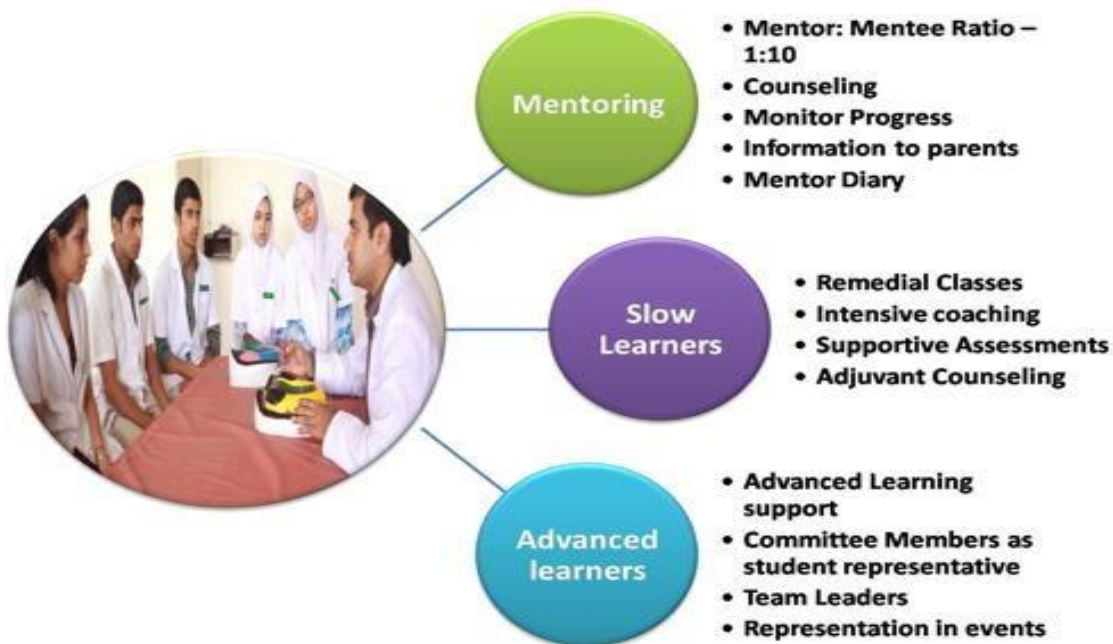
The feedback mechanism is expected to assist JSSAHERM, to improve the following:

- Quality of teaching
- Service provided to students both academic and non-academic
- Infrastructure – new equipments in laboratories, classrooms
- Organization of extra-curricular activities – outings, sports activities, cultural events, etc
- Quality of learning materials distributed to students
- Importance of courses being delivered;
- Objectives and career pathway of students
- Creation of short training programmes to enhance learning
- Encouraging faculty members to pursue their studies to higher levels
- Converting weaknesses of faculties to strengths to provide better learning opportunities for students.

I. Student Support and Guidance

JSSAHERM is providing career counselling, remedial coaching, bridge courses, soft skill development, personal counselling and guidance for competitive examinations besides improving their communication and language skills to improve their employability as well as build human values in their personality. The institution strongly believes that its primary stakeholders are students. The institution tries to realize its vision and mission centering on student empowerment, inclusive practices, and knowledge – skill – competence development. Accordingly, the institution has implemented suitable supporting steps and facilities for the benefit of students. Towards this, the institution has a provision counselors/ mentors /advisors for each class or group of students for academic and personal guidance.

The various student support mechanisms are summarised below:



Each cohort of the programme is allocated a Programme Coordinator who will act as a liaison officer between the students and the institution. The programme coordinator will also provide support for academic management of the programme

Student support and guidance at JSSAHERM include:

1. Tutoring
2. Access to library / E-library
3. Access to IT workshop/LMS support
4. A variety of student welfare activities

5. Workshop and Laboratories

J. Attendance Requirements

The students must secure a minimum of 80% attendance in each module to become eligible to take term end examination. All students must attend every lecture and practical classes except for approved leave like medical emergencies etc., Each course of the semester is treated as a separate unit for calculation of the attendance. A student, who does not satisfy the attendance requirement, mentioned as above, is not be eligible to appear for the examination of that semester and not promoted to higher semester. The student is required to repeat that semester along with regular students later by paying the prescribed fee as per the regulations of JSSAHERM.

K. Credit System**A. Credit Equivalence**

1. (i) 1 credit = 15 hours of lecture/tutorial
- (ii) 1 credit = 30 hours of practical/seminars/practice school
- (iii) 1 credit = 60 hours of Professional Placement/internship

2. Project / Dissertation: 6 credits.

B. Credits per level

Each level shall constitute of the following number of credit subject to the required number of credits for award:

| | |
|-------------------|-----------------|
| Level 1 | : 53-56 credits |
| Level 2 | : 48 credits |
| Level 3 | : 58 credits |
| Level 4 (B.Pharm) | : 52 credits |

| Total Number of Credits | |
|-------------------------|----------------|
| Semester | No. of Credits |
| I | 27 |
| II | 26 |
| III | 22 |
| IV | 26 |
| V | 30 |
| VI | 28 |
| VII | 28 |

| | |
|--------------|------------|
| VIII | 22 |
| TOTAL | 209 |

L. Student Progress and Assessment

- The evaluation of performance of the student is based on the marks obtained in each module. Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) are calculated to determine their final awards at the end of their programme of study.
- Modules are assessed through written examinations of duration of 3 hours.
- All modules are normally assessed over 100 marks, except for project/dissertation which will be assessed over 200 marks.
- The overall pass mark for a module shall be 50%, subject to the students submitting their continuous assessment within set deadlines.
- All modules must be passed in the examinations, coursework and other forms of assessment.

The modules will be assessed as follows:

- End semester examinations contributing to 70% of the total marks for theory and 60% for practicals
- Continuous assessment including sessional exams carrying 30% of total marks for theory and 40% for practicals of total marks. Continuous assessment can be based on attendance, seminars and/or assignments and other activities.

In order to pass in a module, a minimum of 50% should be attained in:

- Continuous assessment, and in
- End semester examination

Scheme for awarding Continuous mode marks;

| Criteria | MaximumMarks |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Attendance | 4 |
| Academic activities (Average of any 3 activities e.g. quiz, assignment, open book test, fieldwork, group discussion and seminar). For Practicals - Based on Practical Records, Regular viva voce, etc. | 3 |
| Student–Teacher interaction | 3 |
| Total | 10 |

Guidelines for the allotment of marks for attendance

| Percentage of Attendance | Marks |
|--------------------------|-------|
| 95 – 100 | 4 |
| 90 – 94 | 3 |
| 85 – 89 | 2 |
| 80 – 84 | 1 |
| Less than 80 | 0 |

Scheme for internal assessments and end semester examinations

| Subject | Assessment | | | | End Semester Exams | | Total Marks |
|-----------|-----------------|-----------------|----------|-------|--------------------|----------|-------------|
| | Continuous Mode | Sessional Exams | | Total | Marks | Duration | |
| | | Marks | Duration | | | | |
| Theory | 10 | 20 | 1 Hr | 30 | 70 | 3 Hrs | 100 |
| Practical | 10 | 30 | 4 Hrs | 40 | 60 | 4 Hrs | 100 |

Letter grades and grade points allocations:

Award classifications shall be based on the performance of each candidate in examinations/coursework as determined by the Academic Council.

Based on the performances, each student shall be awarded a final letter grade at the end of the semester for each course as given below:

| Undergraduate/ Postgraduate | | |
|------------------------------------|--------------|---------------------|
| Overall Marks | Grade | Remarks |
| $90 \leq X \leq 100$ | O | Outstanding |
| $80 \leq X < 90$ | A | Excellent |
| $70 \leq X < 80$ | B | Very Good |
| $60 \leq X < 70$ | C | Good |
| $50 \leq X < 60$ | D | Satisfactory |
| $X < 50$ | F | Failed |

Grade Points equivalent to Percentage of marks and performances

| Percentage of Marks Obtained | Grade Point (G) |
|-------------------------------------|------------------------|
| 90.00 – 100 | 10 |
| 80.00 – 89.99 | 9 |
| 70.00 – 79.99 | 8 |
| 60.00 – 69.99 | 7 |
| 50.00 – 59.99 | 6 |
| Less than 50 | 0 |
| Absent | 0 |

A learner who remains absent for any end semester examination shall be assigned a letter grade of AB and a corresponding grade point of zero. He/she should reappear for the said evaluation/examination in due course.

Calculation of Semester grade point average (SGPA)

The performance of a student in a semester is indicated by a number called 'Semester Grade Point Average' (SGPA). The SGPA is the weighted average of the grade points obtained in all the courses by the student during the semester. For example, if a student takes five courses

(Theory/Practical) in a semester with credits C1, C2, C3, C4 and C5 and the student’s grade points in these courses are G1, G2, G3, G4 and G5, respectively, and then students’ SGPA is equal to:

$$C_1G_1 + C_2G_2 + C_3G_3 + C_4G_4 + C_5G_5$$

$$SGPA = \frac{\text{-----}}{C_1 + C_2 + C_3 + C_4 + C_5}$$

The SGPA is calculated to two decimal points. It should be noted that, the SGPA for any semester shall take into consideration the F grade awarded in that semester. For example if a learner has a F grade in course 4, the SGPA shall then be computed as:

$$C_1G_1 + C_2G_2 + C_3G_3 + C_4 * \text{ZERO} + C_5G_5$$

$$SGPA = \frac{\text{-----}}{C_1 + C_2 + C_3 + C_4 + C_5}$$

Calculation of Cumulative Grade Point Average (CGPA)

The CGPA is calculated with the SGPA of all the semesters to two decimal points and is indicated in final grade report card/final transcript showing the grades of all semesters and their courses. The CGPA shall reflect the failed status in case of F grade(s), till the course(s) is/are passed. When the course(s) is/are passed by obtaining a pass grade on subsequent examination(s) the CGPA shall only reflect the new grade and not the fail grades earned earlier. The CGPA is calculated as:

$$C_1S_1 + C_2S_2 + C_3S_3 + C_4S_4 + C_5S_5 + C_6S_6 + C_7S_7 + \dots + C_nS_n$$

$$CGPA = \frac{\text{-----}}{C_1 + C_2 + C_3 + C_4 + C_5 + C_6 + C_7 + \dots + C_n}$$

where C1, C2, Cn,... is the total number of credits for semester I,II,...n, and S1,S2, Sn,...is the SGPA of each semester I,II,,,n.

Note: Practice School

From the 4th semester onwards and before 7th semester, every candidate shall undergo practice school in the laboratories/hospitals/clinics as per the availability for a period of 180 hours. The student shall opt for any one of the domains for practice school as declared by the program committee from time to time.

At the end of the practice school, every student shall submit a printed report (in triplicate) on the practice school he/she attended (not more than 25 pages). Along with the exams of semester VII, the report submitted by the student, knowledge and skills acquired by the student through practice

school shall be evaluated by the subject experts at school level and grade point shall be awarded.

Evaluation of Performance

All modules carry equal weight, except for dissertation, which counts for the equivalent of 2 modules.

Project/dissertation

Candidates should compulsorily submit a related project at the end of the final semester of the programme or a dissertation. The scope of the research will be assessed and approved through a project proposal that will be due after completion of Biostatistics and Research Methodology module. The project will mainly involve real problems solving situation or will be on Pharmacy themes. The project should be around 5000-8000 words and may have to be defended in a viva-voce.

The project shall be evaluated as per the criteria given below;

| Parameter | Marks |
|-----------------------------------|--------------|
| Evaluation of Dissertation | |
| Book | |
| Objective(s) of the work done | 20 |
| Methodology adopted | 25 |
| Results and Discussions | 25 |
| Conclusions and Outcomes | 30 |
| Total | 100 |
| Evaluation of Presentation | |
| Presentation of work | 30 |
| Communication skills | 30 |
| Question and answer skills | 40 |
| Total | 100 |

M. Award Classification

The class shall be awarded on the basis of CGPA as follows:

| Classification of Award | CGPA |
|--------------------------------|----------------|
| Distinction | 8.00 and above |
| Merit | 7.00 to 7.99 |
| Pass | 6.00 to 6.99 |
| No Award | less than 6.00 |

N. Programme Organisation and Management

Programme Coordinator :

Name : Prof Dr Ashish Wadhvani

Email : dradwadhvani@jssuni.edu.in

O. Programme Structure – January 2024 Curriculum

Bachelor of Pharmacy (B Pharm) – Full Time

| YEAR 1 (Level 1) | | | | | | | | | |
|------------------|------------------------------------|--------|---|-----------|--------------|------------------------------------|--------|---|-----------|
| Semester I | | | | | Semester II | | | | |
| Code | Modules | Hrs/Wk | | Credits | Code | Modules | Hrs/Wk | | Credits |
| | | T | P | | | | T | P | |
| BP101T | Human Anatomy and Physiology I | 4 | - | 4 | BP201T | Human Anatomy and Physiology II | 4 | - | 4 |
| BP102T | Pharmaceutical Analysis | 4 | - | 4 | BP202T | Pharmaceutical Organic Chemistry I | 4 | - | 4 |
| BP103T | Pharmaceutics | 4 | - | 4 | BP203T | Biochemistry | 4 | - | 4 |
| BP104T | Pharmaceutical Inorganic Chemistry | 4 | - | 4 | BP204T | Pathophysiology | 4 | - | 4 |
| BP105T | Communication skills | 2 | - | 2 | BP205T | Computer Applications in Pharmacy | 3 | - | 3 |
| BP106P | Human Anatomy and Physiology | - | 4 | 2 | BP206P | Human Anatomy and Physiology II | - | 4 | 2 |
| BP107P | Pharmaceutical Analysis | - | 4 | 2 | BP207P | Pharmaceutical Organic Chemistry I | - | 4 | 2 |
| BP108P | Pharmaceutics | - | 4 | 2 | BP208P | Biochemistry | - | 4 | 2 |
| BP109P | Pharmaceutical Inorganic Chemistry | - | 4 | 2 | BP209P | Computer Applications in Pharmacy | - | 2 | 1 |
| BP110P | Communication skills | - | 2 | 1 | | | | | |
| Total | | | | 27 | Total | | | | 26 |

| YEAR 2 (Level 2) | | | | | | | | | |
|------------------|-------------------------------------|--------|---|-----------|--------------|--------------------------------------|--------|---|-----------|
| Semester III | | | | | Semester IV | | | | |
| Code | Modules | Hrs/Wk | | Credits | Code | Modules | Hrs/Wk | | Credits |
| | | T | P | | | | T | P | |
| BP301T | Pharmaceutical Organic Chemistry II | 4 | - | 4 | BP401T | Pharmaceutical Organic Chemistry III | 4 | - | 4 |
| BP302T | Industrial Pharmacy I | 4 | - | 4 | BP402T | Medicinal Chemistry I | 4 | - | 4 |
| BP303T | Pharmaceutical Microbiology | 4 | - | 4 | BP403T | Pharmacology I | 4 | - | 4 |
| BP304T | Pharmaceutical Jurisprudence | 4 | - | 4 | BP404T | Pharmacognosy and Phytochemistry | 4 | - | 4 |
| BP305P | Pharmaceutical Organic Chemistry II | - | 4 | 2 | BP405T | Community Pharmacy | 4 | - | 4 |
| BP306P | Industrial Pharmacy I | - | 4 | 2 | BP406P | Medicinal Chemistry I | - | 4 | 2 |
| BP307P | Pharmaceutical Microbiology | - | 4 | 2 | BP407P | Pharmacology I | - | 4 | 2 |
| | | | | | BP408P | Pharmacognosy and Phytochemistry | - | 4 | 2 |
| Total | | | | 22 | Total | | | | 26 |

| YEAR 3 (Level 3) | | | | | | | | | |
|------------------|-------------------------------------------|--------|---|-----------|--------------|-----------------------------------------|--------|---|-----------|
| Semester V | | | | | Semester VI | | | | |
| Code | Modules | Hrs/Wk | | Credits | Code | Modules | Hrs/Wk | | Credits |
| | | T | P | | | | T | P | |
| BP501T | Medicinal Chemistry II | 4 | - | 4 | BP601T | Pharmacy Practice (Hospital & Clinical) | 4 | - | 4 |
| BP502T | Physical Pharmaceutics | 4 | - | 4 | BP602T | Pharmacology III | 4 | - | 4 |
| BP503T | Pharmacology II | 4 | - | 4 | BP603T | Pharmacotherapeutics I | 4 | - | 4 |
| BP504T | Pharmacognosy and Herbal Drug Technology | 4 | - | 4 | BP604T | Biopharmaceutics and Pharmacokinetics | 4 | - | 4 |
| BP505T | Pharmaceutical Biotechnology & Immunology | 4 | - | 4 | BP605T | Instrumental Methods of Analysis | 4 | - | 4 |
| BP506T | Quality Assurance | 4 | - | 4 | BP606P | Pharmacy Practice (Hospital & Clinical) | - | 4 | 2 |
| BP507P | Physical Pharmaceutics | - | 4 | 2 | BP607P | Pharmacology III | - | 4 | 2 |
| BP508P | Pharmacology II | - | 4 | 2 | BP608P | Pharmacotherapeutics I | - | 4 | 2 |
| BP509P | Pharmacognosy and Herbal Drug Technology | - | 4 | 2 | BP609P | Instrumental Methods of Analysis | - | 4 | 2 |
| Total | | | | 30 | Total | | | | 28 |

| YEAR 4 (Level 4) | | | | | | | | | |
|------------------|---------------------------------------------|--------|----|-----------|---------------|----------------------------------------|--------|---|-----------|
| Semester VII | | | | | Semester VIII | | | | |
| Code | Modules | Hrs/Wk | | Credits | Code | Modules | Hrs/Wk | | Credits |
| | | T | P | | | | T | P | |
| BP701T | Pharmacotherapeutics II | 4 | - | 4 | BP801T | Biostatistics and Research Methodology | 4 | - | 4 |
| BP702T | Industrial Pharmacy II | 4 | - | 4 | BP802T | Social and Preventive Pharmacy | 4 | - | 4 |
| BP703T | Clinical Research I | 4 | - | 4 | - | Elective 1 | 4 | - | 4 |
| BP704T | Pharmacoepidemiology and Pharmacoconomics I | 4 | - | 4 | - | Elective 2 | 4 | - | 4 |
| BP705T | Novel Drug Delivery System (NDDS) | 4 | - | 4 | BP811PW | Project Work | 12 | - | 6 |
| BP706P | Pharmacotherapeutics II | - | 4 | 2 | | | | | |
| BP707PS | Practice School | - | 12 | 6 | | | | | |
| Total | | | | 28 | Total | | | | 22 |

List of Electives

| List of Electives | | | |
|-------------------|---------------------------------------------|--------|---------|
| Code | Modules | Hrs/Wk | Credits |
| BP803ET | Pharmaceutical Marketing | 4 | 4 |
| BP804ET | Pharmaceutical Regulatory Science | 4 | 4 |
| BP805ET | Radiopharmaceuticals | 4 | 4 |
| BP806ET | Computer Aided Drug Design | 4 | 4 |
| BP807ET | Pharmacovigilance | 4 | 4 |
| BP808ET | Comprehensive Immunization Delivery | 4 | 4 |
| BP809ET | Veterinary PublicHealth and Epidemiology | 4 | 4 |
| BP810ET | Dietary Supplements and Nutraceuticals | 4 | 4 |

JSS Academy of Higher Education and Research (Mauritius)

Programme Structure: Existing January 2020 Curriculum

Bachelor of Pharmacy (B-Pharm) – Full Time

| YEAR 1 (Level 1) | | | | | | | |
|-------------------|------------------------------------------------|--------|-----------|--------------------|------------------------------------------------|--------|-----------|
| <i>Semester I</i> | | | | <i>Semester II</i> | | | |
| Code | Modules | Hrs/Wk | Credits | Code | Modules | Hrs/Wk | Credits |
| BP101T | Human Anatomy and Physiology I – Theory | 4 | 4 | BP201T | Human Anatomy and Physiology II – Theory | 4 | 4 |
| BP102T | Pharmaceutical Analysis I – Theory | 4 | 4 | BP202T | Pharmaceutical Organic Chemistry I – Theory | 4 | 4 |
| BP103T | Pharmaceutics I – Theory | 4 | 4 | BP203T | Biochemistry – Theory | 4 | 4 |
| BP104T | Pharmaceutical Inorganic Chemistry – Theory | 4 | 4 | BP204T | Pathophysiology – Theory | 4 | 4 |
| BP105T | Communication skills – Theory | 2 | 2 | BP205T | Computer Applications in Pharmacy – Theory | 3 | 3 |
| BP107P | Human Anatomy and Physiology – Practical | 4 | 2 | BP206P | Human Anatomy and Physiology II – Practical | 4 | 2 |
| BP108P | Pharmaceutical Analysis I – Practical | 4 | 2 | BP207P | Pharmaceutical Organic Chemistry I – Practical | 4 | 2 |
| BP109P | Pharmaceutics I – Practical | 4 | 2 | BP208P | Biochemistry – Practical | 4 | 2 |
| BP110P | Pharmaceutical Inorganic Chemistry – Practical | 4 | 2 | BP209P | Computer Applications in Pharmacy – Practical | 2 | 1 |
| BP111P | Communication skills – Practical | 2 | 1 | | | | |
| Total | | | 30 | Total | | | 26 |

| YEAR 2 (Level 2) | | | | | | | |
|------------------|------------------------------------------------|--------|--------------|-------------|----------------------------------------------|--------|--------------|
| Semester III | | | | Semester IV | | | |
| Code | Modules | Hrs/Wk | Credits | Code | Modules | Hrs/Wk | Credits |
| BP301T | Pharmaceutical Organic Chemistry II–Theory | 4 | 4 | BP401T | Pharmaceutical Organic Chemistry III–Theory | 4 | 4 |
| BP302T | Industrial Pharmacy - I–Theory | 4 | 4 | BP402T | Medicinal Chemistry I–Theory | 4 | 4 |
| BP303T | Pharmaceutical Microbiology–Theory | 4 | 4 | BP403T | Pharmacology I–Theory | 4 | 4 |
| BP304T | Pharmaceutical Jurisprudence–Theory | 4 | 4 | BP404T | Pharmacognosy and Phytochemistry I–Theory | 4 | 4 |
| BP305P | Pharmaceutical Organic Chemistry II– Practical | 4 | 2 | BP405T | Community Pharmacy – Theory | 4 | 4 |
| BP306P | Industrial Pharmacy - I–Practical | 4 | 2 | BP406P | Medicinal Chemistry I–Practical | 4 | 2 |
| BP307P | Pharmaceutical Microbiology–Practical | 4 | 2 | BP407P | Pharmacology I–Practical | 4 | 2 |
| | | | | BP408P | Pharmacognosy and Phytochemistry I–Practical | 4 | 2 |
| | | | | | | | |
| | | | Total | | | | 22 |
| | | | | | | | Total |
| | | | | | | | 26 |

| YEAR 3 (Level 3) | | | | | | | | | |
|------------------|----------------------------------------------|--------|--------------|-------------|----------------------------------------------|--------|---------|--------------|-----------|
| Semester V | | | | Semester VI | | | | | |
| Code | Modules | Hrs/Wk | Credits | Code | Modules | Hrs/Wk | Credits | | |
| BP501T | Medicinal ChemistryII–Theory | 4 | 4 | BP601T | Medicinal ChemistryIII–Theory | 4 | 4 | | |
| BP502T | PhysicalPharmaceuticsI–Theory | 4 | 4 | BP602T | PharmacologyIII–Theory | 4 | 4 | | |
| BP503T | PharmacologyII–Theory | 4 | 4 | BP603T | Herbal Drug Technology–Theory | 4 | 4 | | |
| BP504T | Pharmacognosy and PhytochemistryII–Theory | 4 | 4 | BP604T | Biopharmaceutics and Pharmacokinetics–Theory | 4 | 4 | | |
| BP505T | Pharmaceutical Biotechnology - Theory | 4 | 4 | BP605T | Physical Pharmaceutics II – Theory | 4 | 4 | | |
| BP506T | Quality assurance–Theory | 4 | 4 | BP606P | Medicinal chemistryIII – Practical | 4 | 2 | | |
| BP507P | Physical Pharmaceutics I – Practical | 4 | 2 | BP607P | PharmacologyIII–Practical | 4 | 2 | | |
| BP508P | PharmacologyII–Practical | 4 | 2 | BP608P | Herbal DrugTechnology–Practical | 4 | 2 | | |
| BP509P | Pharmacognosy and PhytochemistryII–Practical | 4 | 2 | BP609P | Physical Pharmaceutics II – Practical | 4 | 2 | | |
| | | | Total | 30 | | | | Total | 28 |

| YEAR 4 (Level 4) | | | | | | | |
|------------------|------------------------------------------------|--------|-----------|---------------|----------------------------------------|--------|-----------|
| Semester VII | | | | Semester VIII | | | |
| Code | Modules | Hrs/Wk | Credits | Code | Modules | Hrs/Wk | Credits |
| BP701T | Instrumental Methods of Analysis–Theory | 4 | 4 | BP801T | Biostatistics and Research Methodology | 4 | 4 |
| BP702T | Industrial Pharmacy II–Theory | 4 | 4 | BP802T | Social and Preventive Pharmacy | 4 | 4 |
| BP703T | Pharmaceutical Engineering – Theory | 4 | 4 | - | Elective 1 | 4 | 4 |
| BP704T | Pharmacy Practice (Hospital & Clinical)-Theory | 4 | 4 | - | Elective 2 | 4 | 4 |
| BP705T | Novel Drug Delivery System–Theory | 4 | 4 | BP813PW | Project Work | | 6 |
| BP706P | Instrumental Methods of Analysis–Practical | 4 | 2 | | | | |
| BP707P | Pharmaceutical Engineering – Practical | 4 | 2 | | | | |
| BP708PS | Practice School | 12 | 6 | | | | |
| Total | | | 30 | Total | | | 22 |

List of Electives

| List of Electives | | | |
|-------------------|-------------------------------------------------|--------|---------|
| Code | Modules | Hrs/Wk | Credits |
| BP803ET | Pharmaceutical Marketing | 4 | 4 |
| BP804ET | Pharmaceutical Regulatory Science | 4 | 4 |
| BP805ET | Pharmacovigilance | 4 | 4 |
| BP806ET | Quality Control and Standardizations of Herbals | 4 | 4 |
| BP807ET | Computer Aided Drug Design | 4 | 4 |
| BP808ET | Cell and Molecular Biology | 4 | 4 |
| BP809ET | Cosmetic Science | 4 | 4 |
| BP810ET | Experimental Pharmacology | 4 | 4 |
| BP811ET | Advanced Instrumentation Techniques | 4 | 4 |
| BP812ET | Dietary Supplements and Nutraceuticals | 4 | 4 |