



JSS Academy of Higher Education & Research

(Deemed to be University)

Re-Accredited "A+" Grade by NAAC

Sri Shivarathreeshwara Nagara Mysuru - 570015, Karnataka

Faculty of Life Sciences

Regulations

UNDERGRADUATE PROGRAMMES
As Per National Education Policy 2020
Under the CBCS Pattern
Implementation Year 2021-22 onwards

BSc

Regulations

UNDERGRADUATE PROGRAMMES

**2021–22 onwards
as per NEP 2020
Under the CBCS Pattern**



**JSS Academy of Higher Education & Research
School of Life Sciences, Mysuru
&
Life Sciences Departments**

Preamble

Higher education plays an extremely important role in promoting human as well as societal well-being. The need to uphold equality, social consciousness, culture and importantly, scientific temper (as envisaged in Article 51A (h) of the Indian Constitution) is the need of the hour. Understanding the necessity to create sustainable livelihoods and economic development of the nation, the National Education Policy 2020 has been implemented, which contributes enormously to attain a holistic educational goal. A very important aspect of the NEP 2020 is to provide greater flexibility in the education system to foster the culture of lifelong learning, as more young Indians are likely to aspire for higher education and skills. University Grants Commission (UGC) has stressed on speedy and substantive academic and administrative reforms in higher education for the promotion of quality and excellence. Semester System with a Choice Based Credit System (CBCS), Flexibility in Curriculum Development and Examination Reforms leading to Continuous Evaluation Pattern by reducing the weightage on the end semester examination, etc., are a few to name, which are important in the CBCS pattern. Further, introducing discipline-specific and interdisciplinary elective courses, skill enhancement courses and soft skill courses can be considered unique which results in edutainment or to be precise, an enjoyable learning atmosphere for the students. Given the present trend of globalization and considering the NEP guidelines, JSS Academy of Higher Education & Research (JSS AHER) has adopted the CBCS in line with the NEP 2020, so that the acceptability of the programmes and degrees offered by the Institute becomes comparable and readily acceptable. After due consideration, the following Regulations were drawn.

1. Title and Commencement

It shall be called Regulations for undergraduate programmes under NEP 2020, Choice Based Credit System (CBCS), Continuous Assessment and Grading Pattern (CAGP) for Undergraduate (UG) Programs offered by JSS Academy of Higher Education and Research, Mysuru. These Regulations shall come into force from the academic year 2021-2022.

2. Salient Features of the Multidisciplinary Undergraduate Programmes with Multiple Entry and Exit Options

a) The program shall be structured in a semester mode with multiple exit options with Certification, Diploma and Basic Bachelor Degree after first, second and third years, respectively. The candidate who completes the four years Undergraduate Program, either in one stretch or through multiple exits and re-entries would get a Bachelor's degree with Honours.

b) The four years undergraduate Honours degree holders with a research component and a suitable grade are eligible to enter the 'Doctoral (Ph.D.) Program' in a relevant discipline or to enter 'Two Semester Master's Degree programme with project work'.

c) Candidates who wish to enter the Master's/Doctoral programme in a discipline other than the major discipline studied at the undergraduate programmes, have to take additional courses in the new discipline to meet the requirement or to make up the gap between the requirement and the courses already studied.

f) The students who exit with Certification, Diploma and Basic Bachelor Degree shall be eligible to re-enter the programme at the exit level to complete the programme or to complete the next level.

g) The curriculum shall combine conceptual knowledge with practical engagement and understanding that has relevant real-world application through practical laboratory work, fieldwork, internships, workshops and research projects.

3. Applicability

This regulation applies to all the UG programs offered under Life Sciences and Natural Sciences and any other UG programs offered in the future.

UG programs currently offered:

- 1) B.Sc./B.Sc., (Hons) in Biochemistry
- 2) B.Sc./B.Sc., (Hons) in Biotechnology
- 3) B.Sc./B.Sc., (Hons) in Environmental Sciences
- 4) B.Sc./B.Sc., (Hons) in Food, Nutrition & Dietetics
- 5) B.Sc./B.Sc., (Hons) in Microbiology
- 6) B.Sc./B.Sc., (Hons) in Psychology

4. Programme Structure

3.1. All the UG degree programmes shall be of six semesters or eight semesters (Hons) duration unless specified otherwise.

3.2. An academic year consists of two semesters: Odd and Even.

3.3. A semester normally extends over 16 to 18 weeks spanning 90 working days.

3.4. Programme structure

Each course in a programme shall carry a certain number of credits, which normally represent the weightage of a course and are a function of teaching, learning and evaluation strategies such as a number of contact hours, the course content, teaching methodology, learning outcomes, etc.

4. Definitions

4.1. Academic Year: Two consecutive (one odd + one even) semesters constitute one academic year.

4.2. Choice Based Credit System (CBCS): The CBCS provides choices for students to select from the prescribed courses (core, elective, minor or soft skill courses).

4.3. Course: Usually referred to, as 'papers' is a component of a programme. Not all courses need to carry the same weight. The courses define learning objectives and learning outcomes and are designed to comprise lectures/laboratory work/fieldwork/ outreach activities/project work/viva/seminars/assignments/self-study etc. or a combination of some of the above.

4.4. Credit Point: It is the product of grade points and the number of credits for a course.

4.5. Credit: A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/fieldwork per week.

4.6. Cumulative Grade Point Average (CGPA): It is a measure of the overall cumulative performance of a student overall semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters.

4.7. Grade Point: It is a numerical weight allotted to each letter grade on a 10-point scale.

4.8. Letter Grade: It is an index of the performance of students in a said course. Letters A++, A+, A, B+, B, C and F., denote grades.

4.9. Programme: An educational programme leading to the award of a Degree, Diploma or Certificate.

4.10. Semester Grade Point Average (SGPA): It is a measure of performance of work done in a semester. It is the ratio of total credit points secured by a student in various courses in a semester and the total course credits taken during that semester.

4.11. Grade Cards, Transcripts & Certificates: Based on the grades earned, a grade card shall be issued to all the registered students after every semester. The grade card will display the course details (code, title, number of credits, grade secured) along with SGPA of that semester and CGPA earned till that semester.

Transcripts shall be issued to students according to the norms of the University. Certificate, Diploma and Degree Certificates shall be issued after successful completion of the respective Programmes

5. Types of Courses

5.1. Discipline Specific Course (DSC) is a core course, which should be compulsorily studied by a student as a core requirement of the programme.

5.2. Elective Course is a course, which can be chosen from a pool of courses. It may be very specific, specialized, advanced or supportive to the discipline/subject of study, which provides an extended scope or which enables exposure to some other discipline/subject/domain or nurtures the student's proficiency/skill.

a) Discipline Specific Elective (DSE) is a course offered under the main discipline/subject of study.

b) Open Elective (OE) is an elective course chosen from an unrelated discipline/subject to seek exposure beyond discipline/subject.

5.3. Ability Enhancement Courses (AEC) may be of two types: Ability Enhancement Compulsory Courses (AECC) and Skill Enhancement Courses (SEC). AECC courses are mandatory courses based upon the content that leads to knowledge enhancement viz., Environmental Studies, Indian Constitution and English / Modern Indian Languages (MIL) / Communication skills. SEC courses are aimed at providing hands-on training, competencies, skills, etc.

5.4. Value-Based/Activity Based Course is a course intended to improve the communication skills, enrich personality development, Computing skills, Quantitative aptitude and knowledge of Foreign language of the students. These courses are intended to enhance the employability of the students. The courses will help to bridge the gap between the skill requirements of the employer or industry and the competency of the students.

5.5. Massive Open Online Courses (MOOCs)

MOOCs are online courses, which are available on the SWAYAM (Study Web of Active-Learning for Young Aspiring Minds) platform of the Government of India. In case a student selects MOOCs in lieu of the interdisciplinary course, the credit earned therefrom will be considered for grading and ranking. The credits earned under the SWAYAM platform are also transferable from one institution to another. The student is eligible to take additional courses under MOOCs if he/she opts to earn extra credits, however, these would be considered as additional SWAYAM/ MOOCs and will not be considered either for grading or for ranking.

6. Scheme of the Programme

6.1. Certificate Programme

The minimum duration for completion of a Certificate Programme is one year or two semesters with total credits of 48.

6.2. Diploma Programme

The minimum duration for completion of a Diploma Programme is two years or four semesters with total credits of 94.

6.3. B.Sc., Degree Programme

A student must have earned 136 credits for the successful completion of a three-year or six-semester UG programme.

6.4. B.Sc., Hons Programme

A student must have earned 176 credits for the successful completion of a four-year or eight semesters UG (Hons) programme.

The respective Board of Studies (BoS) shall prescribe the distribution of credits for different programs/courses.

6.5. Only such students, who successfully complete the required credits in the corresponding years without break, shall be considered for declaration of ranks and/or medals.

7. Attendance

Only those students who have a minimum of 75% attendance shall be permitted to take end semester examination.

8. Assessment

8.1. Continuous Internal Assessment (CIA)

Assessment and evaluation processes happen in a continuous mode. However, for reporting purposes, assessment is periodically divided into two phases identified as Continuous Internal Assessment - CIA-1 & CIA-2.

The performance of a student in a course will be assessed as explained below:

The outline for continuous assessment activities for CIA-1 & CIA-2 shall be as proposed by the respective Departments. This will be based on tests/assignment/viva-voce/seminar/any other. The sum of two CIAs will be taken as final CIA marks. If a candidate absents from CIA, his/her marks will be zero. The Board of Studies shall approve the scheme for assessment and evaluation.

8.2. End Semester Examination (ESE):

There shall be one end semester examination (ESE) of three hours or two hours duration for each lecture-based course, dependent on the number of credits.

For practical examination, the duration shall be fixed for minimum 3 hours and may be extended depending on the course.

The end semester examination is compulsory for all students and evaluated by the deputed faculty members either internal or external or both appointed by the office of the Controller of Examinations.

8.3. Weightages:

For Lecture-based courses (Non-laboratory)

Continuous Internal assessment - 30 %

End – Semester Examination - 70 %

For laboratory-based courses / Practical

Sessional Assessment - 30 %

End – Semester Examination - 70 %

9. Passing Criteria

- 9.1. A student is considered to have passed the course, only on securing a minimum of 35% in ESE and 40% of marks in aggregate of ESE and CIA put together in both theory and practical examinations separately.
- 9.2. A student can take ESE irrespective of the marks scored in CIA.
- 9.3. In case a student fails in end semester examination or absents for the same, the student is said to have not completed the course. The student shall complete the course by reappearing only for ESE component of that course when University conducts the examination. The student carries the marks already awarded in CIA.
- 9.4. On successful completion of programmes, the Institute will issue a final grade card consisting of grades of all courses successfully completed by the student.

10. Makeup Examination

For students who could not attend CIA due to medical reasons/extraordinary circumstances/participation in Sports/NCC/NSS/any other extracurricular activities, CIA exams may be conducted for them separately before the end semester examination.

11. Grading:

- 11.1. Based on the performance, students shall be awarded a Final Letter Grade at the end of each semester in each course and overall grade in the final semester.
- 11.2. The letter grades and their corresponding grade points are as follows:

Grade Points	Marks secured for 100	Grade	Qualification
10	90-100	'A++'	Outstanding
9	80-89	'A+'	Excellent
8	70-79	'A'	Very Good
7	60-69	'B+'	Good
6	50-59	'B'	Fair
5	40-49	'C'	Pass
0	Below 40	'F'	Fail

Calculation of Grade Points

Semester Grade point average (SGPA)

$$\text{SEMESTER GRADE POINT AVERAGE (SGPA)} = \frac{\text{CREDIT INDEX for each semester}}{\Sigma \text{CREDIT}}$$

Cumulative Grade point average (CGPA)

$$\text{CUMULATIVE GRADE POINT AVERAGE (CGPA)} = \frac{\text{CREDIT INDEX of all semesters upto 6}^{\text{th}}/8^{\text{th}} \text{ sem}}{\Sigma \text{CREDIT}}$$

- 11.3. The above grading is done by the office of the Controller of Examinations after considering both internal (Continuous assessment) and end semester marks.
- 11.4. Students will not be considered to have completed a course successfully and earned the credits when he/she secures a Letter Grade of 'F'.

12. Declaration of Class:

CGPA	Class
9.00 and above (Single attempt)	Pass; First Class with Distinction
9.00 and above (Multiple attempts)	Pass; First Class
8.00 – 8.99	Pass; First Class
7.00 – 7.99	
6.00 – 6.99	Pass; Second Class
5.00 – 5.99	
Below 5.00	Fail

13. Grade Card:

The grade card issued at the end of each semester to students by the Controller of Examinations office shall contain the following:

- 13.1. The credits for each course for that semester.
- 13.2. The performance in each course is shown by the letter grade obtained.
- 13.3. The Grade Point Average (GPA) of all the courses for the semester.
- 13.4. The Semester Grade Point Average (SGPA) of all the courses studied from the first semester.
- 13.5. The total marks secured by the candidate for each of the courses in which the candidate appeared for the end semester examinations.

14. Eligibility for the award of Certificate, Diploma, UG Degree and UG (Hons) Degree:

A student shall be declared eligible for the award of the corresponding degree, when he/she has fulfilled the following conditions.

- 14.1. Undergone all the core/elective and supportive courses and completed the Extension activity or internship or fieldtrip, etc., if any as prescribed by the Scheme of Examinations.
- 14.2. Successfully acquired the required credits under elective and supportive courses as specified in the curriculum of the Programme within the stipulated time.
- 14.3. Has a CGPA of 5.0 or higher.

15. Subject Coordinator and Student Advisor

- 15.1. Head of the Department shall be the **Subject Coordinator**. He/she is responsible for the Student Advisor's work and student support services.
- 15.2. Every student will have a member of the faculty of the Department as a **Student Advisor**. All teachers of the department shall function as Student Advisors and will have an equal number of students. The Student Advisor will advise the students in choosing elective courses and offer them all possible assistance.

16. Revaluation & Retotaling Policy

The University has adopted multiple valuations by examiners either from the same institute or from another institute, appointed by the Vice-Chancellor. Therefore, there is no option for revaluation. However, students may apply for re totaling within a stipulated time upon payment of fee as prescribed by the Controller of Examination.

17. Eligibility for Admission

- 17.1. A candidate who has passed the two-year Pre-University examination conducted by the Pre-university Board of Education, Government of Karnataka or any other examination considered equivalent by the Institute is eligible for admission to the first Semester of the UG program.
- 17.2. A candidate who has acquired the necessary credits in the first year of the undergraduate programme or with a Certificate Degree is eligible for admission to the second year of the undergraduate programme or the Diploma Degree.
- 17.3. A candidate who has a Diploma Degree with the necessary credits is eligible for admission to the third year of the Undergraduate (UG) Degree Programme.
- 17.4. Any candidate who has completed Undergraduate Degree Programme with necessary credits is eligible for admission to the fourth year of the UG (Hons) Degree Programme.
- 17.5. Lateral entry to the corresponding Degree Programmes from other institutions is subject to the availability of seats, provided the credits are transferred and retrieved through the Academic Bank of Credits (ABC). Criteria to admit students from other institutions through lateral entry is purely dependent on the host institution and the eligibility mandate of the respective departments offering the programmes.
- 17.6. Students from other Universities shall be accommodated only during the beginning of the odd semesters and not during the even semesters.

18. Medium of Instruction

The Medium of Instruction shall be English for all the Programmes.

19. Conduct

Every student is required to observe discipline and decorum both inside and outside the campus in accordance with the instructions of the Institution.

20. Grievance Cell

Every Department shall have one Grievance Cell. Students shall report any grievances related to academic matters to the cell. The composition of this cell is as follows:

- Dean (or his/her representative)
- Heads of the Departments
- One senior faculty member from each Department

21. Others

The Vice-Chancellor shall decide any issue not specifically mentioned in these regulations.

MODEL QUESTION PAPER

QP CODE:

JSS Academy of Higher Education & Research, Mysuru
(Deemed to be University)
First Semester B.Sc., - Program (RS-1) Examination - Year

Subject:

Note: Draw neat, labeled diagrams wherever necessary.

Your answers should be specific to the questions asked.

Time: 02 Hours

Max Marks: 50

I. LONG ESSAYS (Answer any TWO of the following)

2x10=20 Marks

- 1.
- 2.
- 3.

II. SHORT ESSAYS (Answer any FIVE of the following)

5x4=20 Marks

- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

III. SHORT ANSWERS (Answer all the following)

5x2=10 Marks

- 11.
- 12.
- 13.
- 14.
- 15.

MODEL QUESTION PAPER

QP CODE:

JSS Academy of Higher Education & Research, Mysuru
(Deemed to be University)

First Semester B.Sc., - Program (RS-1) Examination - Year

Subject:

Note: Draw neat, labeled diagrams wherever necessary.

Your answers should be specific to the questions asked.

Time: 03 Hours

Max Marks: 70

I LONG ESSAYS (Answer any TWO of the following) 2x15=30 Marks

- 1.
- 2.
- 3.

II SHORT ESSAYS (Answer any FIVE of the following) 5x6=30 Marks

- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

III SHORT ANSWERS (Answer all the following) 5x2=10 Marks

- 11.
- 12.
- 13.
- 14.
- 15.
