

CHAUDHARY RANBIR SINGH UNIVERSITY, JIND

Ordinance

Bachelor of Technology

(Computer Science – Artificial Intelligence and Machine Learning)

(ACCORDING TO CHOICE BASED CREDIT SYSTEM)

(w e.f. 2024-25)

1. Definitions :

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

1.1.1.2 **Choice Based Credit System (CBCS):** The CBCS provides choice for students to select from the Program Elective, Professional Elective and Open Elective courses offered by Department of Computer Science and Applications.

1.1.1.3 **Course:** All courses need not carry the same weight. The courses should define learning objectives. A course may be designed to comprise lectures/ tutorials/laboratory work/ field work/ outreach activities/ project work/ vocational training/viva/ seminars/ term papers/dissertation/ presentations/ self-study etc. or a combination of some of these.

1.1.1.4 **Credit Based Semester System (CBSS):** Under the CBSS, the requirement for awarding a degree or diploma or certificate is prescribed in terms of number of credits to be completed by the students.

1.1.1.5 **Credit Point:** It is the product of grade point and number of credits for a course.

1.1.1.6 **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/field work per week.

1.1.1.7 **Cumulative Grade Point Average (CGPA):** It is a measure of overall cumulative performance of a student over all 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. It is expressed up to two decimal places.

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

1.1.1.9 **Letter Grade:** It is an index of the performance of students in a said course. Grades are denoted by letters O, A+, A, B+, B, C, P,F and AB.

1.1.1.10 **Programme:** An educational programme leading to award of BTech (CS-AI&ML) Degree.

1.1.1.11 **Semester Grade Point Average (SGPA):** It is a measure of performance of work done in a semester. It is ratio of total credit points secured by a student in various courses registered in a semester and the total course credits taken during that semester. It shall be expressed up to two decimal places.

1.1.1.12 **Semester:** Each semester will consist of 15-18 weeks of academic work equivalent to 90 actual teaching days. The odd semester may be scheduled from July to December and even semester from January to June. Final schedule will be notified by Academic Branch, Chaudhary Ranbir Singh University, Jind as approved by Competent Authority.

1.1.1.13 **Transcript or Grade Card or Certificate:** Based on the grades earned, a grade certificate shall be issued to all the registered students after every semester. The grade certificate will display the course details (code, title, number of credits, grade secured) along with SGPA of that semester and CGPA earned till that semester.

2. **Duration:** Duration of Programme will be 4 Years (8 Semesters).

3. **Eligibility:** Should be Passed 10+2 examination with Physics/ Mathematics / Chemistry/ Computer Science/ Electronics/ Information Technology/ Biology/ Informatics Practices/ Biotechnology/ Technical Vocational subject/ Agriculture/ Engineering Graphics/ Business Studies/ Entrepreneurship.

Obtained at least 45% marks (40% marks in case of candidates belonging to reserved category) in the above subjects taken together.

OR

Passed D.Voc. Stream in the same or allied sector. (The Universities will offer suitable bridge courses such as Mathematics, Physics, Engineering drawing, etc., for the students coming from diverse backgrounds to prepare Level playing field and desired learning outcomes of the programme).

OR

Passed minimum 3 years Diploma Examination with at least 45% marks (40% marks in case of candidates belonging to reserved category) subject to vacancies in the First Year, in case the vacancies at lateral entry are exhausted.

4. Types of Courses:

Courses in a programme will be as mentioned from 4.1 to 4.8.

- 4.1 Humanities & Social Science Courses
- 4.2 Basic Science Courses
- 4.3 Engineering Science Courses
- 4.4 Program Core Courses
- 4.5 Professional Elective Courses
- 4.6 Open Elective Courses
- 4.7 Project work, Seminar and Internship in Industry or elsewhere
- 4.8 Audit Courses [Environmental Sciences, Indian Constitution]
- 4.9 Academic Council of Chaudhary Ranbir Singh University will decide the whole syllabus including Open Elective Course on recommendations of Staff Council, Board of Under Graduate Studies and Faculty of Physical Sciences.
- 4.10 The class of the Open Elective course shall be conducted as per university time table for Open Electives.
- 4.11 A student shall have the liberty to opt Open Elective course from the list offered by other departments of the University, as per the requirement of the scheme of the programme.
- 4.12 The medium of instruction for examination of Open Elective Course shall be English.
- 4.13 The credits for Project Report etc. shall be decided by the Academic Council of Chaudhary Ranbir Singh University.

5. Examination and Assessment:

5.1 Every candidate shall be examined according to the scheme of examination and syllabi as approved by the Academic Council from time to time.

5.2 The examination shall comprise written papers, practical, project work and/or viva-voce examinations prescribed by the Academic Council of Chaudhary Ranbir Singh University. There shall be internal and external assessment examination. The relative weightage of internal assessment and semester end external examinations of each theory course shall be 20 percent and 80 percent respectively.

5.3 The break-up for internal assessment shall be as follows:

(a). Two Class Tests (One hour duration) : 75 %

Note : Three Class Tests will be conducted. Two Best will be considered for internal assessment.

(c). Attendance : 25%

Marks for Attendance will be awarded in a manner given below:

Theory Paper		Practical Paper	
Percentage of Attendance	Marks	Percentage of Attendance	Marks
90% and above	100%	90% and above	100%
85%-89%	85%	80% to 90%	80%
75% to 84%	70%	Below 80 %	0
Below 75 %	0		

(Marks will be rounded off to nearest integer)

Provided that the candidate will have to appear for internal assessment during the concerned semester only.

5.4 In case of the assessment of practical component of courses, the evaluation should be undertaken by internal as well as external examiners on 20% – 80 % basis. Class Tests will be conducted in form of Execution of Programs. Record of Code of Program / Case Study will be sent by student to email id of concerned teacher and Chairperson, Department of Computer Science and Applications for record.

5.5 In case of the assessment of project reports the evaluation should be undertaken by internal as well as external examiners.

The Internal Examiner will evaluate Project Report before submission and will award internal marks as decided by Academic Council of Chaudhary Ranbir Singh University.

The External Examiner will evaluate Project Report forwarded by Controller of Examination, Chaudhary Ranbir Singh University, Jind and will award external Marks.

After the evaluation of Project Report, Examinee will present his work through presentation and appear in Viva Voce before the External Examiner.

5.6 The medium of examination shall be English.

5.7 The candidates shall write their answers in English. Minimum 40 % marks are essential in all courses for passing in BTech (CS-AI&ML) (Grace Marks as per University norms). A candidate will have to score minimum 40% marks in external as well as internal examination of each course to pass BTech (CS-AI&ML).

5.8 The internal assessment marks obtained by the candidates in each semester will be forwarded by the Chairperson, Department of Computer Science and Applications to the Controller of Examination as scheduled by the Competent Authority of the University. The Chairperson, Department of Computer Science and Applications shall preserve the record on the basis of which the internal assessment awards have been prepared, for inspection, if needed by the University up to six months from the date of declaration of the semester result.

5.9 The examination for first, third, fifth and seventh semester shall ordinarily be held in the month of December and for the second, fourth, sixth and eighth semester in the month of May/June or such dates as may be fixed by the Controller of Examination, Chaudhary Ranbir Singh University, Jind.

The dates fixed under this clause shall be notified by the Controller of Examinations in consultation with the Chairperson, Department of Computer Science and Applications.

The internal examination shall ordinarily be conducted by teacher concerned. However, the schedule shall be decided by the Chairperson, Department of Computer Science and Applications.

5.10 A candidate who has appeared and failed in one or more subjects in one semester shall be allowed to study for and appear in forthcoming semester. He/she will however be allowed to the forthcoming semester classes provisionally only if he/she passed at least 50 % of the total papers in previous semesters for which result has already been declared. Such candidate will be allowed to reappear for the papers as notified by Controller of Examinations, Chaudhary Ranbir Singh University, Jind.

5.11 A candidate who fails in a course is allowed to reappear only for a maximum of two attempts. The reappear is allowed in external exams as well as internal marks. A candidate who fails in a course is allowed to reappear only for a maximum of two attempts.

If examinee got reappears in external exams then internal marks shall be carried forward.

If examinee got reappears in internal exams then examinee need to reappear in internal exam before the conduct of external examination.

If examinee got reappears in internal exam (after all attempts) as well as external examination, then the examinee will be awarded internal marks in proportion to external marks.

5.12 The candidates who have passed the semester 1st to 8th of the BTech degree examination of this university and desires to improve their marks/class will be permitted to appear only for theory external examination within a period of three years from the date of their final appearance at BTech examination. Only one chance will be given to the candidate for each semester for improvement of performance.

5.13 Letter Grades and Grade Points:

5.13.1 10-point grading system with the following letter grades shall be used to grade the academic performance of a student:

Grades and Grade Points

Letter Grade	Grade Points
Outstanding (O)	10
Excellent (A+)	09
Very Good (A)	08
Good (B+)	07
Above Average (B)	06
Average (C)	05
Pass (P)	04
Fail (F)	00
Absent (AB)	00

5.13.2 Award of Grades and corresponding grade points should be based on Absolute grades as under :

Grade Conversion

Letter Grade	Grade Points	Marks
Outstanding (O)	10	≥ 85
Excellent (A+)	09	≥ 75 and < 85
Very Good (A)	08	≥ 65 and < 75
Good (B+)	07	≥ 55 and < 65
Above Average (B)	06	≥ 50 and < 55
Average (C)	05	> 40 and < 50
Pass (P)	04	40
Fail (F)	00	Less than 40
Absent (AB)	00	Absent

5.13.3 A student obtaining Grade F shall be considered failed and will be required to reappear in the examination.

5.13.4 For non credit courses ‘Satisfactory’ or ‘Unsatisfactory’ shall be indicated instead of the letter grade and this will not be counted for the computation of SGPA/CGPA.

5.14 50% of courses offered in BTech, the assessment of the theoretical component towards the end of the semester should be undertaken by external examiners from

outside the university conducting examination, who may be appointed by the competent authority from the panel approved by Board of Under Graduate Studies, Department of Computer Science and Applications.

- 5.15 The grade points awarded to a student in any particular course/paper will be based on the performance of the student in the internal assessment (sessional tests, attendance and assignments/presentations etc.) and the external assessment (end semester examination) taken together. The distribution of internal marks shall be as per the BTech ordinance.

6. Computation of SGPA and CGPA:

The following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) shall be used :

- 6.1 The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, *i.e*

$$\text{SGPA } (S_i) = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

where C^i is the number of credits of the i^{th} course and G^i is the grade point scored by the student in the i^{th} course.

- 6.2 The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, *i.e.*

$$\text{CGPA} = \frac{\sum(C_i \times S_i)}{\sum C_i}$$

where S^i is the SGPA of the i^{th} semester and C^i is the total number of credits in that semester.

- 6.3 The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

7. General Guidelines:

- 7.1 The Teaching Methodology of the Open elective courses shall be as per requirement of the offered Course.
- 7.2 Minimum 10 Students are required to start any Elective course.
- 7.3 The gap of semesters by the student(s), as the case may be, will be counted towards the total duration of the BTech permissible under the regulations notified by AICTE.
- 7.4 Grace marks shall be awarded in the Open Elective course as per the norms of University.
- 7.5 In case of student's migration from another University to CRSU, Jind, the equivalence of the courses passed shall be decided by the Equivalence Committee of the University.
- 7.6 All academic matters related to the students other than those affecting the University rules and regulations framed from time to time may be looked into by a committee constituted by the Vice Chancellor.
- 7.7 Where this document is silent about any rule, the related Programme Ordinance, University Ordinance, calendar and regulations as framed from time to time shall be applicable.
- 7.8 In case of any situation not covered in the ordinance, Vice Chancellor, Chaudhary Ranbir Singh University is competent to approve.