

PROGRAMME PROJECT REPORT (PPR)

B.Sc. (COMPUTER SCIENCE)

A) Programme's Mission & Objectives-

Mission-

The mission of this programme is to provide innovative program, based on a number of core courses with acknowledgment of CS. Upon graduation, the learner will understand the impact of technology change and finds the current use of Science and computer in different area. The learner will learn the current trends in computer and in course of science that enables them to build a leader.

Objectives-

Our objective is to provide computer education integrated with fundamental courses of science (maths) stream through distance learning facilities for the students belong to rural and tribal backgrounds. We provide innovative computer knowledge with core education of science stream to the learners which enhance the personality and help to develop professionals in the field of science as well as in computer. Following are the key objectives of the programme-

- To develops programming skill and knowledge of science among the learner so as to help them to cope up with course in science with computer.
- To provide practical approach to the learner so they can be able to perform all kind of task related to CS instantly.
- To develop deep knowledge of core science (maths) stream, as well as computer and information technology so they can be able to work as leaders in their sectors.

B) Relevance of the Program with University's Mission-

Dr. C. V. Raman University aims to provide high standard of liberal education to its students, catering to their intellectual growth, personality development & nurtures them to be responsible adults committed to high ethical standards through various courses offered from different fields like commerce & management, science, arts, etc in regular mode as well as Open & Distance Learning mode.

This programme provides the opportunities to the learners according to the university mission. This programme offers new domain of knowledge with core group of science. B.Sc. (CS) course is highly popular in science group learners due to assembling of computer courses. It specially offers for rural and tribal area of learners to achieve quality and value based education. Distance learning program permits a great balance between work and education to the learners.



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C) Nature of Prospective Target Group of Learners-

This program is specifically designed to cater the need of learner's that is not able to study through regular mode. Working professional, housewives, students from rural area, students who do not wish to prefer regular courses due to various reasons & students who cannot afford costly regular courses are target group learners. The learners from urban, ruler and tribal areas who passed 12th exam from science (maths) stream are the targeted group of audience for this program.

D) Appropriateness of Programme to be conducted in Open and Distance Learning Mode to Acquire Specific Skills and Competence-

This programme appropriate and beneficial for learners to achieve skills in field of computer integrated with science courses. After completion of this course learners are capable to compete in IT industry and make a mark in society. There are some following qualities of this programme-

- Enables learners to work efficiently in a dynamic technology era in science and computer.
- Development of computer based skills to empower the personality learners.
- Improve the knowledge of core subjects of science and computer architecture, operating system, computer network etc.
- To provide knowledge of different programming languages, this helps to develop software professional.
- This provides a platform for learners through which they can move themselves into the higher education in field of science group as well as in computer.

E) Instructional Design-

Curriculum Design, Program Structure & Duration of Program-

B.Sc. (CS) program offered in Institute of Open & Distance Education for the period of 36 months (3 years) & open for students (10+2) in maths discipline. This programme is quite different from plain B.Sc. This programme adds computer courses with science courses.

Credit Points-

All courses offered by us carry a certain value in terms of credit-points. A credit point is a way of expressing the learning hours required to study a certain unit, in a book or a course. Generally, one credit point is considered equivalent to about 30 learning hours. These learning hours could mean the time you spend in face to face counseling, self study, practical, assignment, project, participating in discussions on the topic, listening to audios, viewing especially prepared videos, etc. Following is the programme structure of B.Sc. (CS) programme.



BACHELOR OF SCIENCE (B.Sc.) – CS GROUP

| Subject Code | Subjects | Credit | Total Marks | Theory | | Practical Marks | | Assignments | |
|------------------------|---|-----------|-------------|------------|------------|-----------------|-----------|-------------|-----------|
| | | | | Max | Min | Max | Min | Max | Min |
| First Semester | | | | | | | | | |
| 1BSCCS1 | Hindi Language Structure – I | 2 | 50 | 35 | 12 | - | - | 15 | 5 |
| 1BSCCS2 | Entrepreneurship Development | 2 | 50 | 35 | 12 | - | - | 15 | 5 |
| 1BSCCS3 | Physics-I | 4 | 150 | 70 | 23 | 50 | 17 | 30 | 10 |
| 1BSCCS4 | Fundamental Of Computing | 4 | 150 | 70 | 23 | 50 | 17 | 30 | 10 |
| 1BSCCS5 | Mathematics-I | 4 | 100 | 70 | 23 | - | - | 30 | 10 |
| | Total | 16 | 500 | 280 | 101 | 100 | 36 | 120 | 43 |
| Second Semester | | | | | | | | | |
| 2BSCCS1 | English Language and Indian | 2 | 50 | 35 | 12 | - | - | 15 | 5 |
| 2BSCCS2 | Development of Entrepreneur | 2 | 50 | 35 | 12 | - | - | 15 | 5 |
| 2BSCCS3 | Physics-II | 4 | 150 | 70 | 23 | 50 | 17 | 30 | 10 |
| 2BSCCS4 | Programming With C | 4 | 150 | 70 | 23 | 50 | 17 | 30 | 10 |
| 2BSCCS5 | Mathematics -II | 4 | 100 | 70 | 23 | - | - | 30 | 10 |
| | 2Total | 16 | 500 | 280 | 101 | 100 | 36 | 120 | 43 |
| Third Semester | | | | | | | | | |
| 3BSCCS1 | Hindi Language aur Samvedana | 2 | 50 | 35 | 12 | - | - | 15 | 5 |
| 3BSCCS2 | Environmental Studies-I | 2 | 50 | 35 | 12 | - | - | 15 | 5 |
| 3BSCCS3 | Physics-III | 4 | 150 | 70 | 23 | 50 | 17 | 30 | 10 |
| 3BSCCS4 | Data Structure | 4 | 150 | 70 | 23 | 50 | 17 | 30 | 10 |
| 3BSCCS5 | Mathematics -III | 4 | 100 | 70 | 23 | - | - | 30 | 10 |
| | Total | 16 | 500 | 280 | 101 | 100 | 36 | 120 | 43 |
| Fourth Semester | | | | | | | | | |
| 4BSCCS1 | English Language and Scientific Temper | 2 | 50 | 35 | 12 | - | - | 15 | 5 |
| 4BSCCS2 | Environmental Study-II | 2 | 50 | 35 | 12 | - | - | 15 | 5 |
| 4BSCCS3 | Physics-IV | 4 | 150 | 70 | 23 | 50 | 17 | 30 | 10 |
| 4BSCCS4 | DBMS | 4 | 150 | 70 | 23 | 50 | 17 | 30 | 10 |
| 4BSCCS5 | Mathematics -IV | 4 | 100 | 70 | 23 | - | - | 30 | 10 |
| | Total | 16 | 500 | 280 | 101 | 100 | 36 | 120 | 43 |
| Fifth Semester | | | | | | | | | |
| 5BSCCS1 | Hindi Language (Bhasha Kaushal aur Sanchar Sadhan) | 2 | 50 | 35 | 12 | - | - | 15 | 5 |
| 5BSCCS2 | Introduction to Computer Systems and Cyber Law-I | 2 | 50 | 35 | 12 | | | 15 | 5 |
| 5BSCCS3 | Physics-V | 4 | 150 | 70 | 23 | 50 | 17 | 30 | 10 |
| 5BSCCS4 | Software Engineering | 4 | 150 | 70 | 23 | 50 | 17 | 30 | 10 |
| 5BSCCS5 | Mathematics -V | 4 | 100 | 70 | 23 | - | - | 30 | 10 |
| | Total | 16 | 500 | 280 | 101 | 100 | 36 | 120 | 43 |
| Six Semester | | | | | | | | | |
| 6BSCCS1 | English Language and Aspects of Development | 2 | 50 | 35 | 12 | - | - | 15 | 5 |
| 6BSCCS2 | Introduction to Computer Systems and Cyber Law-II | 2 | 50 | 35 | 12 | | | 15 | 5 |
| 6BSCCS3 | Physics-VI | 4 | 150 | 70 | 23 | 50 | 17 | 30 | 10 |
| 6BSCCS4 | Java | 4 | 150 | 70 | 23 | 50 | 17 | 30 | 10 |
| 6BSCCS5 | Mathematics -VI | 4 | 100 | 70 | 23 | - | - | 30 | 10 |
| | Total | 16 | 500 | 280 | 101 | 100 | 36 | 120 | 43 |

Evaluation Scheme-

1. 33% in each theory, practical, project, dissertation & internal assessment but the total aggregate for passing is 36%.

Duration-

This programme has duration of three years although student may complete the programme gradually within a maximum period of seven years.

Medium-

English/Hindi shall be the medium of instruction and the examination may be written in Hindi or English.

Requirement of Faculty and Support Staff-

For B.Sc. (CS) programme we have two faculty members (full time-dedicated for ODL courses) has the level of Associate and Assistant Professor. Supporting staffs will be deputed at the learner support centre as per need of the course curriculum.

Instructional Delivery Mechanism & Usage of Media for Distance Learning-

The methodology of instruction in the distance learning mode in the university is different from that of the conventional regular programs. The system adopted for this more learner oriented and the learner is an active participant in the pedagogical process. Most of the instructions are imparted through distance education methodology and face to face mode as per requirement.

The programme delivery methodology used in the distance learning mode follows a multimedia approach for instructions, which comprises-

- **Self Instructional Written Material-** The printed study material (written in self instructional style) for both theory and practical components of the programs is supplied to the learners in batches for every course.
- **Audio-Visual Material Aids-** The learning package contains audio and video CDs which have been produced/adopted by the University for better clarification and enhancement for understanding of the course material given to the learners. A video programme is normally of 25-30 minutes duration. The video cassettes are screened at the learner support centre during specific sessions which are duly notified for the benefit of the learners.
- **Counseling Sessions-** Normally counseling sessions are held as per schedule drawn by the IODE DR. C. V. RAMAN UNIVERSITY. These are mostly held outside the regular working hours of the learner support centre.
- **Teleconferences-** Live teleconferencing sessions are conducted via internet/ satellite through interactive Video Conferencing facility (available at some places) from the University studios, the schedule of which is made available at the learner support centre.



- **Industrial Training/Practical/Project Work-** Some programmes have industrial training/practical/ project component also. Practical are held at designated institutions for which schedule is provided by the learner support centre. Attendance at practical is compulsory. For project work, comprehensive project guide, in the form of booklet, is provided to the student along with the study material.
- The printed study materials will be dispatched periodically to the enrolled students for each paper of study. These materials will be as guide for the students for effective learning. The assignment for internal assessment shall also be dispatched along with the study material. Online modules are also available for some courses. These are in progress and as and when available, these will be available on the website of the students for registered candidates.
- The counseling sessions will be of 30 days duration for a course in a year. The actual schedule and place of contact program shall be announced and communicated to students in time.

Nature of Contact Classes-

During the contact sessions, the counselors are supposed to guide/discuss with the learner's, based on the course material. The learner's can solve their difficulties by discussing with their colleagues as well as with the counselor during contact sessions. Apart from this contact sessions, learners will have to attend practical as well as various training schedule conducted by the respective learner support centre.

Learner Support Services-

Dr. C. V. Raman University Institute of Open And Distance Education has a fully fledged Learner Support Division (LSD) to provide guidance and help to its students. Necessary information is passed on to the registered student through modern means of communication as SMS, website and e-mail. For the convenience of learner, computer, photocopy machine, internet, WIFI facilities have also been provided. The learner support division has a web centre and SMS No. 56161 where learner can message their problems and seek answer. Bulk SMS are sent to learners regarding their registration detail, dispatch of study, material time table for contact class, submission of examination forms, examination schedule etc. from time to time. Important information and necessary material are also sent through e-mail and through regular post. University's website www.cvru.ac.in also provides information about the various programmes being offered by the institute of open and distance education, the syllabus, assignment, programme guide.

Counseling & Study Structure-

The counseling and study structure for B.Sc. (CS) programme is as below-

| Course Code | Name of the Course | Credit | Total Hours | Counseling and Study Structure (hours) | | | |
|------------------------|-------------------------------------|-----------|-------------|--|------------|-----------|-------------|
| | | | | Face to Face Counseling | Self study | Practical | Assignments |
| First Semester | | | | | | | |
| 1BSCCS1 | Hindi Language Structure - I | 2 | 60 | 8 | 34 | - | 18 |
| 1BSCCS2 | Fundamentals of Entrepreneurship | 2 | 60 | 8 | 34 | - | 18 |
| 1BSCCS3 | Physics-I | 4 | 120 | 16 | 44 | 24 | 36 |
| 1BSCCS4 | Fundamental of Computing | 4 | 120 | 16 | 44 | 24 | 36 |
| 1BSCCS5 | Mathematics-I | 4 | 120 | 16 | 68 | - | 36 |
| | Total | 16 | | | | | |
| Second Semester | | | | | | | |
| 2BSCCS1 | English Language and Indian Culture | 2 | 60 | 8 | 34 | - | 18 |
| 2BSCCS2 | Development of Entrepreneur | 2 | 60 | 8 | 34 | - | 18 |
| 2BSCCS3 | Physics-II | 4 | 120 | 16 | 44 | 24 | 36 |
| 2BSCCS4 | Programming With C | 4 | 120 | 16 | 44 | 24 | 36 |
| 2BSCCS5 | Mathematics - II | 4 | 120 | 16 | 44 | | 36 |
| | Total | 16 | | | | | |
| Third Semester | | | | | | | |
| 3BSCCS1 | Hindi Language aur Samvedana | 2 | 60 | 8 | 34 | - | 18 |
| 3BSCCS2 | Environmental Studies-I | 2 | 60 | 8 | 34 | - | 18 |
| 3BSCCS3 | Physics-III | 4 | 120 | 16 | 44 | 24 | 36 |
| 3BSCCS4 | Data Structure | 4 | 120 | 16 | 44 | 24 | 36 |
| 3BSCCS5 | Mathematics - III | 4 | 120 | 16 | 68 | - | 36 |
| | Total | 16 | | | | | |

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| Fourth Semester | | | | | | | |
|------------------------|--|-----------|-----|----|----|----|----|
| 4BSCCS1 | English Language and Scientific Temper | 2 | 60 | 8 | 34 | - | 18 |
| 4BSCCS2 | Environmental Study-II | 2 | 60 | 8 | 34 | - | 18 |
| 4BSCCS3 | Physics-IV | 4 | 120 | 16 | 44 | 24 | 36 |
| 4BSCCS4 | DBMS | 4 | 120 | 16 | 44 | 24 | 36 |
| 4BSCCS5 | Mathematics - IV | 4 | 120 | 16 | 68 | - | 36 |
| Total | | 16 | | | | | |
| Fifth Semester | | | | | | | |
| 5BSCCS1 | Hindi Language (Bhasha Kaushal aur Sanchar Sadhan) | 2 | 60 | 8 | 34 | - | 18 |
| 5BSCCS2 | Software Engineering | 2 | 60 | 8 | 34 | - | 18 |
| 5BSCCS3 | Physics-V | 4 | 120 | 16 | 44 | 24 | 36 |
| 5BSCCS4 | Software Engineering | 4 | 120 | 16 | 44 | 24 | 36 |
| 5BSCCS5 | Mathematics - V | 4 | 120 | 16 | 68 | - | 36 |
| Total | | 16 | | | | | |
| Six Semester | | | | | | | |
| 6BSCCS1 | English Language and Aspects of Development | 2 | 60 | 8 | 34 | - | 18 |
| 6BSCCS2 | Management And Information System | 2 | 60 | 8 | 34 | - | 18 |
| 6BSCCS3 | Physics-VI | 4 | 120 | 16 | 44 | 24 | 36 |
| 6BSCCS4 | Java | 4 | 120 | 16 | 44 | 24 | 36 |
| 6BSCCS5 | Mathematics- VI | 4 | 120 | 16 | 68 | - | 36 |

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|--------------|-----------|--|--|--|--|--|
| Total | 16 | | | | | |
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F) Procedure for Admissions, Curriculum Transaction & Evaluation-

Admission Policy for B.Sc. (CS) with minimum eligibility & fee structure-

Admission to B.Sc. (CS) programme shall be through merit and/or, entrance test as per rules of university. The minimum eligibility for admission into this programme for the candidates is having passed higher secondary (10+2) from science (maths) stream, From Chhattisgarh board of secondary education, Chhattisgarh or any equivalent examination of a board or university recognized may be admitted. All the procedure of admission for the programme will be done through online mode. Application will be invited by the university with it stipulated time period where students have to apply for the same with all their testimonials and required fees.

Fees Structure-

| Sl. | Programme | Duration | Fee charged for complete programme |
|------------|------------------|-----------------|---|
| 1. | B.Sc. (CS) | 3 Years | 35400 |

Financial Assistance-

The University also offers e-scholarship to SC/ST students as per norms of the Govt. of Chhattisgarh authorized schemes.

Evaluation System-

The system of evaluation in open and distance learning system has a multi-tier system of evaluation.

1. Self-assessment exercise within each unit of study.
2. Continuous evaluation mainly through assignments which are tutor-marked practical assignments and seminar/workshop/extended.
3. The term-end examinations.

The evaluation of learners depends upon various instructional activities undertaken by them. A learner has to write assignment responses compulsorily before taking term-end examination from time to time to complete an academic programme. A learner has to submit TMA responses to the learner support centre established by IODE Dr. C. V. Raman University. A learner should keep duplicate copies of assignments responses of TMA that may be required to be produced at Student Evaluation Division on demand. Term-end examination will be conducted at various examination centre approved by institute of open and distance education Dr. C. V. Raman University spread all over the Chhattisgarh.. The weightage for Term End Examination will be 70% and weightage for Internal Assessment will be 30% for this programme.

Evaluation Procedure-

(A) Internal Assessment (Continuous Assessment i.e. Home Assignment)- 30% weightage.

(B) Term End Examination - 70% weightage.

| | |
|----------------------|-----|
| Term End Examination | 70 |
| Internal Assessment | 30 |
| Total Marks | 100 |

The University conducts Term-End Examination in semester system & held in the month of Nov/Dec and May/June every year. Students will be permitted to appear in term-end examination subject to the conditions that-

- 1) Registration for the courses, in which they appeared is valid,
- 2) Minimum time to pursue these courses is elapsed
- 3) Submission of required number of assignment in respective courses by the due date.

G) Requirement of the laboratory support and library resource-

Taught the learners in laboratory develop their competency, confidence and practical skill. Our University have well equipped laboratory. The learners are engaged in the laboratory as per the time schedule. Resources in the form of reference books and journal will be made available to the learner in the reference library (IODE) and university central library which they can access for gaining knowledge.

H) Cost estimates of the programme and the provision-

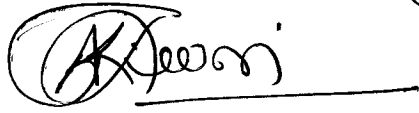
This programme was already designed and developed in the year 2009-10. In this process of development considering today's scenario, the current cost estimate which includes developmental cost, delivery cost & maintenance cost for this programme comes to amount of Rs.850550 & provision is made of Rs. 900000.


I) Quality assurance mechanism and expected programme outcomes-


The Centre for Internal Quality Assurance & Board of Studies of the University is accountable for regular monitoring of programme by continuous updating of the curriculum and syllabus. According to feedback provided by stakeholders including learners on continuous basis, a suitable action plan for B.Sc. (CS) programme will be developed and duly incorporated into the teaching and delivery system. The Feedback from all stakeholders in terms of its relevance and appropriateness in catering to the need of the society, economy and environment are also considered in these key aspects. "At the end of the programme expected outcomes"-


- To acquired a general knowledge, principles and mechanisms of computer and basic sciences.
- To acquired a basic knowledge of subjects.

- To acquired techniques relevant of subjects taught.
- To provide the practical expose and knowledge acquiring skill.
- To crate and develop the presentation skill in seminar/conferences.
- To develop skill to e-library software and internet resources independently.


 (Anand Tiwari)


 (Gaurav Shukla)


 (Dr. R. P. Duly)


 (Kiran Tiwari)

