

## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

#### 2.1.1 Average percentage of students from other States and Countries during the last five years

**Response:** 0

##### 2.1.1.1 Number of students from other states and countries year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

#### File Description

#### Document

List of students (other states and countries)

[View Document](#)

Institutional data in prescribed format

[View Document](#)

#### 2.1.2 Average Enrollment percentage (Average of last five years)

**Response:** 95.93

##### 2.1.2.1 Number of students admitted year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
784	758	761	701	756

##### 2.1.2.2 Number of sanctioned seats year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
836	790	765	765	765

#### File Description

#### Document

Institutional data in prescribed format

[View Document](#)

Any additional information

[View Document](#)

#### 2.1.3 Average percentage of seats filled against seats reserved for various categories as per

**applicable reservation policy during the last five years****Response:** 78.26

2.1.3.1 Number of actual students admitted from the reserved categories year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
40	37	37	30	36

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**2.2 Catering to Student Diversity****2.2.1 The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners****Response:**

After the students get admitted to our institution, an induction program for the fresher's is organized, wherein the students are assembled and given elaborate information about the institution, academic facilities and other amenities like library, laboratories, computer center and cultural activities. The Academic Officer details out academic calendar, rules and regulations of University and examination pattern.

To identify the students as advanced learner or slow learner, available data of merit marks of their previous classes viz 10th and 12th is shared with the team of Mentors. The rank of student in Common Entrance Test (CET) conduct by J&K Board of Professional Entrance Examinations is also taken into consideration by the mentors.

**Slow learners**

The students are mentored by their respective mentors through interactive sessions in addition to this feedback about the capacity and impact of mentorship is obtained from the concerned faculty of their classes and the students are guided as per their requirement level.

**Strategies for slow learners:**

- The students are provided with tutorials, remedial classes are conducted after class hours to clarify doubts, re-explain the critical topics for an improved performance.
- Counseling and mentoring sessions conducted in a friendly way help the students to overcome their

psychological problems and achieve their goals successfully.

- The Institute has a system to communicate performance and attendance of students to parents regularly. Faculty members do periodic interactions with parents about their performance.
- By virtue of appropriate counseling with additional teaching the students get motivated to attend classes regularly which in turn help in their overall performance.
- Faculty members revise the difficult/complicated topics as per the students requisition and provide previous university question papers and guide them in presenting the answers in appropriate manner.

### Advanced Learners

High performing students are identified on the basis of their proactive behavior and performance in internal assessment, university examinations, active participation/involvement in committees/seminars etc.

### Strategies for Advanced Learners

- Advanced study materials are provided to further enhance their performance.
- In order to take benefit of papers published by professional bodies and participation in high profile events/sessions/symposia the students are encouraged to become members of these bodies like ISTE, Institute of Engineers etc.
- Encourage students to take part in various competitive examinations like GATE, CAT, IAS, KAS etc
- Encourage students to qualify IELTS, TOEFL, GRE etc which is required to pursue higher studies outside the country.
- The students are motivated to take up micro projects to inculcate research orientation and practical awareness from the second year onwards apart from mini and major projects.
- Semester toppers are provided with certificate of merit by the Management.
- Providing opportunities to develop their creativity and organizing intercollegiate as well as attending technical events.
- Encourage students to participate in various MHRD quality programs such as FOSS,SWAYAM, NPTEL etc.

File Description	Document
Any additional information	<a href="#">View Document</a>

### 2.2.2 Student - Full time teacher ratio

**Response:** 19.62

File Description	Document
Any additional information	<a href="#">View Document</a>

### 2.2.3 Percentage of differently abled students (Divyangjan) on rolls

**Response:** 0

2.2.3.1 Number of differently abled students on rolls

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

## 2.3 Teaching- Learning Process

**2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences**

**Response:**

The teaching process has been devised in such a manner so as to make it student centric and thrust is given on experimental learning. The students are encouraged to take up participative learning and are given real world problems for their solution. The innovative methods so far practiced are listed below:

- ICT based learning
- Group project-based learning
- Extension lectures by industrial experts.
- Guest lectures by eminent educationalists.
- Hands-on experience in real world environment.
- Organizing seminars and workshops.
- Access of students to various e-resources.
- Access of deserving students to book bank established in central library.
- Well-equipped laboratories in the campus to strengthen the students' involvement in real world problem solving.
- Arrangement of visits to Industries, Actual world of work, Research Institutes to abreast them to the latest developments in their respective discipline.

### **Methodologies for Improving the Teaching and Learning Process**

- The faculty members are constantly persuaded to adopt innovative approaches in the classroom.
- Group discussions are often held to discuss the particular topic of interest thereby enhancing their knowledge and verbal skills.
- Seminar presentations by the students enabling them to present their view on the subject which enriches their communication skill and confidence.
- Efforts are also made to improve the soft skills of the students and make them industry ready by conducting practical training sessions.
- Mock Interviews are conducted for the students by industry people to face the interviews confidentially.
- Various industry supported Centers of Excellence emerge with interdisciplinary projects.
- Students are encouraged to participate in various National and International competitions.

File Description	Document
Any additional information	<a href="#">View Document</a>

### 2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.

**Response:** 72.73

#### 2.3.2.1 Number of teachers using ICT

Response: 112

File Description	Document
List of teachers (using ICT for teaching)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 2.3.3 Ratio of students to mentor for academic and stress related issues

**Response:** 19.62

#### 2.3.3.1 Number of mentors

Response: 154

File Description	Document
Any additional information	<a href="#">View Document</a>

### 2.3.4 Innovation and creativity in teaching-learning

**Response:**

Potential and preparedness of students, skill and knowledge of teachers are two aspects of teaching-learning process. Bringing innovations in teaching-learning process to make it more attractive to students is therefore a primary requirement. Teachers are realizing these changes in cognitive process of students and are innovating various tools and techniques in teaching-learning process to deliver contents/knowledge so that students actively participate in it and grasp the ideas quickly.

Faculty is attending various faculty development programs to keep themselves abreast with latest trends in education technology/pedagogy which make their teaching more innovative. Following are various tools and techniques used by faculty to make teaching innovative:

- ICT based teaching-learning
- Digital social learning platforms
- Exposure of faculty to industry

- Industrial exposure for faculty
- Working on projects based on industrial needs

**Group Discussions:** This involves discussion among a group of students to assess the application of various concepts to gain better perspective on the merits & demerits of concepts.

**Assignments:** Giving assignments to students can provide an opportunity for them to apply critical thinking skills as well as help them to learn course content.

**Tutorials:** For analytical courses, a minimum of two periods are allotted for Tutorial sessions. The entire class of sixty is divided into two batches Two faculty members are deputed for conducting one tutorial session. By this method, individual attention is given to the students.

**Workshops/Guest Lectures/Seminars:** Workshops, seminars and conferences are organized during each semester for gaining the knowledge and increase the research potential of the students and the faculty members.

**Video Lectures/Webinars:** Teaching through video lectures inspires the students to like the environment and enhances the clarity in the understanding of concepts through visual objects.

**Industrial Visits/Hands-on Training/Internships:** Industrial visits for each semester are arranged for the students to experience and know the latest technology. Students are encouraged to undergo internships in industries.

**Project-Based Learning:** In order to learn the practical courses more effectively, the students are encouraged to take-up mini-projects. Being a technical institute, this method is extensively used to provide empirical evidence of theory learned.

**Project Competitions/Hackathons:** Students are motivated to participate in various competitions like Hackathons, Prototype Competitions, Innovative Challenge, Smart India Hackathons to explore their technical skills. We also organize these events regularly.

#### **Projects:**

- Research oriented projects (State Government sponsored Research Project Competition)
- Mini projects

#### **Visits /Participation:**

All above innovations and creativity in teaching learning process lead not only to the improvement in academic performance of the students but also in their communication, human relations, technical and management skills which makes them industry oriented. This is endorsed by acquiring ranking in the University merit list, winning medals, enrolling for higher education.

#### **Case studies:**

Teaching by using case studies enables the students to apply what they have learned in the classroom in the practical field.

**Simulations/ Working Models:**

Through simulation, the students are facilitated to design various projects and conduct experiments. The students are guided to work on working models/ prototypes.

<b>File Description</b>	<b>Document</b>
Any additional information	<a href="#">View Document</a>

**2.4 Teacher Profile and Quality****2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years**

**Response:** 100

<b>File Description</b>	<b>Document</b>
Year wise full time teachers and sanctioned posts for 5 years	<a href="#">View Document</a>
List of the faculty members authenticated by the Head of HEI	<a href="#">View Document</a>

**2.4.2 Average percentage of full time teachers with Ph.D. during the last five years**

**Response:** 7.51

**2.4.2.1 Number of full time teachers with Ph.D. year-wise during the last five years**

2018-19	2017-18	2016-17	2015-16	2014-15
12	11	11	10	9

<b>File Description</b>	<b>Document</b>
List of number of full time teachers with PhD and number of full time teachers for 5 years	<a href="#">View Document</a>

**2.4.3 Teaching experience per full time teacher in number of years**

**Response:** 7.06

**2.4.3.1 Total experience of full-time teachers**

**Response:** 1088

File Description	Document
Any additional information	<a href="#">View Document</a>

#### 2.4.4 Percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years

**Response:** 1.41

2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
2	0	0	0	0

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
e-copies of award letters (scanned or soft copy)	<a href="#">View Document</a>

#### 2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years

**Response:** 0.4

2.4.5.1 Number of full time teachers from other states year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
1	1	1	0	0

File Description	Document
List of full time teachers from other state and state from which qualifying degree was obtained	<a href="#">View Document</a>

## 2.5 Evaluation Process and Reforms

### 2.5.1 Reforms in Continuous Internal Evaluation(CIE) system at the institutional level

**Response:**



The Institute's is affiliated to Kashmir University and the process of evaluation is followed as per the University guidelines for both internal and external examination. The quality of engineering education is the direct outcome of knowledge implanted and evaluated through formal examination. The education process in any discipline of learning ends with examinations. The entire effort put in by the teachers on teaching and the student on learning is centered on getting a good level of success rate in the examinations. This is achieved by continuous assessment which include assignments, internal tests, attendance monitoring and the outcome is discussed in parent-teacher meet.

### **Process of continuous assessment/internal tests**

The Institution has a full-fledged Examination Cell coordinating all the activities related to the conduct of continuous assessment/internal tests which the individual Departments carry through departmental examination coordinator and concerned faculty under the guidance of respective Head of Department.

Question Papers for internal assessments are prepared by keeping Bloom's Taxonomy Levels as the reference.

Two sets of question papers along with answer keys are collected for each course. The question papers are checked for the Course Outcome (CO) coverage and knowledge level by the Departmental Assessment Committee (DAC) and approved by the Head of the Department.

The Examination Cell collects the two sets of Question Papers for every course and selects one question paper randomly

Unit test 3 covering two marks of all the units is conducted at the end of the semester to test the students' conceptual knowledge and make them confident

### **Criteria for Evaluation**

All the answer scripts are evaluated and checked by DAC. Evaluation of internal assessment is rated based on the Bloom's Taxonomy Level and the Course Outcome, Programme Outcome, and Programme Specific Outcome to which it corresponds. Depending upon that, the CO attainment and corresponding attainment of PO and PSO for the respective course are analyzed and appropriate actions are suggested and implemented.

Departmental Assessment Committee continuously identifies any drop in performance of the students and takes immediate steps to counsel the students through mentor-mentee system.

Parent teacher meetings are held at regular intervals in order to appraise the performance of the students

<b>File Description</b>	<b>Document</b>
Any additional information	<a href="#">View Document</a>

### **2.5.2 Mechanism of internal assessment is transparent and robust in terms of frequency and variety**

**Response:**

- The process of internal assessment is well defined and transparent and is communicated to the students, faculty, and parents. The academic schedule in line with the University of Kashmir is prepared well ahead and is circulated to all the students.
- The evaluation criterion which includes attendance monitoring, internal assessment marks, end semester question paper pattern is disseminated to all the students.
- Induction/Orientation programme for fresher's serves as the best platform to make the fresher's aware about the process of evaluation system.
- Regular interactions between Departmental Assessment Committee and students in presence of concerned faculty. Departmental meetings, class committee meetings and counseling sessions are regularized for better understanding between staff and students.
- At the beginning of each semester, HODs convene staff meeting to disseminate information on any changes in the evaluation/ assessment system.
- The answer scripts of examinations are shown to the students after evaluation to bring out the discrepancies, if any, to the notice of teacher concerned, and the necessary corrections are carried out. This also helps the student to improve their performance.
- The marks awarded to the students in the continuous assessment tests percentage are communicated to students.
- The students are made aware of the evaluation procedures including revaluation and examination pattern of college and the university, well in advance.
- Any change in the schemes of evaluation, updates on curriculum revision, alterations in the question paper patterns are conveyed to the students and the faculty.
- The college follows University of Kashmir guidelines for the internal assessment of the theory and laboratory practicals.
- Two internal tests and two assignments are conducted during the term and students are assessed based on their performance.
- Examination results are displayed to the students.

File Description	Document
Any additional information	<a href="#">View Document</a>

**2.5.3 Mechanism to deal with examination related grievances is transparent, time-bound and efficient****Response:**

The institute has adopted fair and transparent process for the evaluation of student prescribed by the University of Kashmir.

The students who have any grievance in the evaluation process whether for internal examination or external one approach the Controller of Examination of the Institution. In case of internal examinations the concerned paper setter/evaluator are directed to address the grievance. In case of external examination the University of Kashmir procedure is followed.

The concerned HOD along with the concerned subject teacher shows the carefully maintained Continuous Assessment scheme (CAS) record to the aggrieved student and tries to resolve the grievance.

The marks in the internal tests are then uploaded in the University of Kashmir web portal. The students' attendance is sent to the Course Revive Committee (CRC) scheduled by the University of Kashmir.

In the event of a grievance related to end semester examination, the University of Kashmir provides the students with an option of obtaining the photocopy of their answer sheets after the declaration of end-semester exam results. The student can review his / her answer sheets and apply for re-evaluation on the recommendation of the subject handling faculty.

Other types of grievances like data missing in the question papers, questions from outside the syllabus, question paper being tough etc., are communicated to the Controller of Examinations of the affiliating university.

File Description	Document
Any additional information	<a href="#">View Document</a>

#### 2.5.4 The institution adheres to the academic calendar for the conduct of CIE

##### Response:

The academic year starts on the date as prescribed by University of Kashmir. The college publishes in advance, the academic calendar containing plans for curricular and co-curricular activities based on the available working/teaching days as per affiliating university norms. The institution academic calendar for each semester is designed to meet the university academic schedule.

##### Allotment of Courses and Preparation of Time Table

- Before the commencement of the semester, the time-table coordinator circulates the course option form which has details of faculty competency to each faculty member. Based on that, the Departmental Assessment Committee will allocate appropriate courses to the faculty.
- Based on the course allocation, the time table coordinator frames the time table.
- For the interdisciplinary courses, the respective departments are requested through concerned HOD to handle the respective courses.
- Slow learners are closely monitored under mentor-mentee system. In addition to this regular classes, extra/remedial classes are conducted to cater to their needs.
- Bright students are motivated to score high grades and to secure university ranks.

The Head of the Department circulates the template of the lecture plan. Based on the academic schedule given by the University, the lecture plan is prepared by the course coordinators and HOD.

During the semester, after every planned unit completion, 'Lesson Plan Follow-Up' formats is circulated to the faculty and are asked to fill the status of completion of the Unit.

The HoD reviews the lesson plan follow-up format. If any discrepancy is found in completion, the HoD discusses the matter with the individual faculty.

Director IQAC monitors the day-to-day conduct of lectures based on the time table.

Departmental Academic Committee (DAC) discusses and plan various academic, co-curricular, extra-curricular, social activities and continuous assessment schedule in accordance with university calendar. All these activities are accordingly included in academic calendar of institute also.

## 2.6 Student Performance and Learning Outcomes

### 2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the Institution are stated and displayed on website and communicated to teachers and students

#### Response:

The Institute runs various engineering, management and computer application programmes at Under Graduate and Post Graduate level.

College has well defined Program Outcomes (PO), Program Specific Outcomes (PSO) and Course Outcomes (CO) for all programs.

Teachers are conversant with POs, PSOs of the programs as they are involved in PO, PSO formation process. Head of the department and teachers discuss POs and frame PSOs of the programs which are in line with Vision and Mission of the Institute.

POs and PSOs are displayed for teachers and students at following locations:

- College website
- HOD cabins
- Departmental Notice Boards
- Department laboratories

Every course teacher discusses expected course outcomes with students at the beginning of each semester.

POs, PSOs and COs are mandatory part of course file prepared by course teacher.

File Description	Document
COs for all courses (exemplars from Glossary)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 2.6.2 Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution

### Response:

#### 1. Attainment of Course Outcomes:

The effectiveness of assessment of the Course Outcomes (COs) can be justified with the help of performance in Internal Assessment and Course End Semester University Examination. The Internal Assessment includes Unit Tests, Assignments and Model Examination. The Course End Semester Examination is conducted by the University of Kashmir, for both theory and practical courses.

**Weightage: 80% (University Exam) and 20% (Internal Assessments) (Batch <2015)**

**Weightage: 50% (University Exam) and 50% (Internal Assessments) (Batch >=2015)**

Internal Assessments are conducted periodically as per the schedule given by the University and the COs of the respective courses is assessed based on the performance of the students. All the assessment components and the course outcome target attainment levels are fixed before the commencement of the course by the course teacher and are reviewed by the PAC.

The target attainment levels will be set by considering the students' previous course outcome attainments in the earlier semesters' courses and the nature of the particular course. Target levels vary from course to course. For internal assessments, attainment is measured in terms of actual percentage of students getting the percentage of marks set for the individual course and for University Examinations; attainment is measured in terms of actual percentage of students getting grades better than the target grade fixed for the individual course.

#### 2. Attainment of Program Outcomes and Program Specific Outcomes:

The assessment tools and processes used for measuring the attainment of each of the Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) are also well described. The POs and PSOs are evaluated by direct and indirect assessment methods. The following methods of assessment are identified for assessing.

##### Direct Assessment

At the end of every semester, the Course Outcome attainments for all the courses undergone by a particular batch of students will be calculated as described above and is tabulated to analyze the contribution of those courses for the Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) attainment. At the end of the programme, after all the courses are completed, PO and PSO attainment levels for a particular batch are obtained.

##### Indirect Assessment

At the end of the programme, an exit survey is collected from all the students. The survey feedbacks are consolidated and the Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) are

calculated.

**Weightage: 80% (Direct Assessment) and 20% (Indirect Assessment)**

The PO and PSO Assessment process are done by the following procedure:

At the end of the academic year, after all the courses for the CAY graduating batch of students are completed, Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) attainment levels for that particular batch are calculated using the Courses-PO / PSO mapping.

The student exit survey feedbacks are also consolidated and the Programme Outcomes (POs) and

Programme Specific Outcomes (PSOs) attainment are calculated.

It is determined whether the POs and PSOs have reached the target level. If the target is not achieved, then necessary actions to be taken will be decided by the PAC, to make the next batch of students reach the target level.

File Description	Document
Any additional information	<a href="#">View Document</a>

**2.6.3 Average pass percentage of Students**

**Response:** 85.79

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 688

2.6.3.2 Total number of final year students who appeared for the examination conducted by the institution

Response: 802

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

**2.7 Student Satisfaction Survey**

**2.7.1 Online student satisfaction survey regarding teaching learning process**

**Response:**