



**MANAV RACHNA
UNIVERSITY**

FORMERLY MANAV RACHNA COLLEGE OF ENGINEERING
NAAC ACCREDITED A GRADE INSTITUTION

Declared as State Private University under section 2f of the UGC act, 1956

MANAV RACHNA UNIVERSITY

(Formerly Manav Rachna College of Engineering)

Faridabad

Guidelines for Effective Teaching Learning & Assessment Process

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HARYANA



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Guidelines for Effective Teaching, Learning and Assessment Process

Manav Rachna University is committed to providing high quality teaching, learning and assessment to enable all learners to achieve their full potential. This will be achieved through high quality teaching and learning opportunities, rigorous assessment, feedback and the sharing of good practice.

The Teaching and Learning Guideline and Procedure aims to provide an effective framework for the delivery of high quality teaching and learning. This relates to all university faculties engaged in facilitating, supporting and managing learning.

1. DEFINITIONS

In these guidelines, unless the context otherwise requires —

- i. "MRU" refers to Manav Rachna University (State Private University, established under Haryana State Private University act 2006).
- ii. "UGC" refers to University Grants Commission, The University Grants Commission of India is a statutory body set up by the Indian Union government in accordance to the UGC Act 1956 under Ministry of Human Resource Development, New Delhi.
- iii. "ICT" refers to the Information and Communication Technology based tools for teaching and learning.
- iv. "e-Resources" refers to the electronic resources used for online information access.
- v. "MOOCs" refers to the massive Open Online Courses being offered through platforms including SWAYAN, Coursera, edX, Udemy etc. to learn new skills as audit pass courses and credit transfer.
- vi. "CIA" refers to continuous internal assessment by the course teachers for direct attainment.
- vii. "ESE" refers to End Semester Examination.
- viii. "SGPA" refers to Semester Grade Point Average for a Semester.
- ix. "CGPA" refers to the Grade Point Average for all the completed semesters at any point in time.
- x. "CO" refers to Course Outcomes.



- xi. "PO" refers to Program Outcomes.
- xii. "PSO" refers to Program Specific Outcomes.
- xiii. "PEO" refers to Program Educational Objectives.
- xiv. "DAC" refers to Department Academic Committee

2. SCOPE

Teaching, learning and assessment are among the core processes of a university. The university will maintain a rigorous regime of teaching-learning processes with the most creditable evaluations systems.

The aim of assessment of teaching -learning process will be able to demonstrate to all of Its stakeholders, especially students, employers, community organizations and regulatory bodies, that the course outcomes of its academic programs are sound and that teaching at the university is inspirational and of the highest quality by:

- placing the learner at the center of the learning process,
- all learners having the opportunity to succeed and be empowered to fulfill their potential,
- developing employability skills as part of the curriculum,
- providing excellent progression opportunities, to employment, entrepreneurship, or further and higher learning
- using assessment to provide effective learning opportunities through feedback,
- using research to inform and inspire students,
- the subject expertise and pedagogic content knowledge of staff leading to excellent teaching and learning
- actively promoting best practice in terms of embedding sustainability

3. PLANNING FOR TEACHING LEARNING PROCESS

- a. At the beginning of each semester, University will prepare the academic calendar for departments to plan and execute its activities accordingly. Academic calendar should be provided to students for each program of the University.
- b. To bring homogeneity among the diversified categories of students, each Faculty will organize orientation programs/induction programs for newly admitted students in the first semester as well as half day orientation in the



beginning of every semester in order to brief students about the various academic policies and procedures.

- c. Each department will devise a mechanism for distinctive approaches for teaching and learning to be adopted to address the needs of slow learners and advanced learners,
- d. Departments will meet the needs of all individuals with, where appropriate, the full involvement of Inclusive Learning in the planning and delivery of the session,
- e. Departments will prepare a schedule for conducting remedial classes for all slow learners to improve their result.
- f. Each department will develop a system of peer learning, student mentoring, team building and organization of events and student involved organizational academic programs to ensure an inclusive academic ambience in the department.
- g. The department academic calendar along with plans for co-curricular/extra-curricular/entrepreneurship related activities will be prepared in advance and executed meticulously.
- h. The departments will use both conventional as well as modern teaching methods to focus more on experiential learning, participative learning and case based learning.
- i. Student seminars, assignments, projects, field work and internships must be a part of the curriculum in majority of the programs.
- j. The advanced learners and students having research inclination will take partnership in research projects with the faculty members.
- k. The meritorious students will be recognized and awarded special prizes.
- l. The student feedback on course delivery will be analyzed regularly and based on it corrective measures are taken to improve quality of teaching-learning process.
- m. Teaching load will be prepared well in advance by HOD in consultation with course coordinators and duly vetted by Dean of institution.
- n. Lesson plans and tutorial plans should be made ready for every course before the start of semester so as to engage in academic delivery more efficaciously. This must Show clear evidence of planning with learning outcomes appropriate to the level and used to monitor student/learner progress



- o. Faculty will build on learners' prior knowledge and understanding, using formative assessment to monitor progress and inform future learning,
- p. Course coordinator file should be made ready for every course of department and should be checked regularly by HoD's and Deans of the respective Faculty. It must include list of all the faculty members teaching a particular course along with their contact details and time table information, complete lesson plan (mapped with Course outcomes) along with text/reference books/videos/learning portals and teaching material to be referred, assignment sheets with their solutions, university question papers for last 3 - 4 years with solution for conceptual, numerical and design problems, power point handouts and course notes, list of students identified as advanced and slow learners and subsequent initiatives taken. This should be followed by the inclusion of attainment and assessment of course outcome records using direct and indirect tools at the end of the semester.
- q. Content delivered should have strong links between theory, practical and industry
- r. Students must have access to resources that enable effective teaching, learning and assessment to take place and appropriate learning outcomes to be achieved,
- s. Curriculum should be delivered in a manner that provides interaction, flexibility and encourages a wide range of teaching and learning activities,
- t. Faculty must be provided with opportunities for teaching and learning to be discussed and promoted with good practice and techniques,
- u. Continuous assessment should be done through viva, quizzes, assignment, presentations as an integral part of our evaluation.
- v. Students will be encouraged to enroll themselves in MOOCs for audit pass courses and credit transfer.
- w. Syllabus should be covered uniformly in all the classes according to the lesson plan and tutorial plan.

4. BEST CLASSROOM PRACTICES

For shifting from teacher centric to student centric learning, each department needs to develop its own best practices to bring the best of teaching efficiency and effectiveness. Through these practices, students will be enabled to integrate theory with practice so that they are able to solve real-life problems



though critical and innovative thinking. Pedagogies like collaborative learning, project based learning, case based learning, active learning etc. involves more creativity and make learning more interesting. Each faculty member will endeavor to make the classes interactive and interesting with clear focus on the curriculum.

For developing best practices, Deans and Head of the departments will identify the training needs of the entire faculty in pedagogical standards and make arrangement of the same either at the departmental level or conduct the trainings through IQAC at central level.

5. STUDENT MENTORING SYSTEM

Student mentoring, counseling and guidance are three vital inputs for an efficacious student support process. The students need this support to overcome their personal, social and academic problems which impede their studies.

The students often face pressure after joining the professional courses. These may be of a varied nature, which may be academic, personal, or career related. At times, due to these anxieties, they feel stressed and this may impede the progress of their pursuit. There are cross- cultural, ethnic disparities, increasing academic competition, peer pressure, exertions from parents, unique teenage problems, mounting career demands and aspirations among the student community. To enable students to stay firm while going through vexations of such stress factors, the university will have an independent but well-coordinated system for student support and mentoring.

Each department of the University shall have a well-entrenched student mentoring mechanism for overall development of the students including career counseling, stress-busting, eclectic progress, soft skill development, career-path-identification, and orientation to well-being.

University has adapted horizontal mentoring system throughout the university that allows the teacher to concentrate on the key groups of the students. Each mentor group includes students from the same batch of a particular programme. This further has two stage mentoring- first is mentoring by mentor to mentees and second is peer mentoring (mentoring by students from the same group). This helps in developing responsibility specific and leadership skills among students by



sharing their experiences including course related guidance, internship related guidance, project assistance, preparation towards placement guidance and many more with peers in a mentor-mentee group.

Recognizing the fact that many faculty members may not have right mentoring and counselling skills, the university will arrange from time-to-time mentor-training programmes for faculty and staff members. This interaction can benefit the mentors as it allows them to widen their circle of influence and be recognized as contributing to the organization as a whole.

Guidelines for Managing Mentoring Program

The different units of the university having mentoring and counseling system will follow these guidelines:

- a) There will be an assessment of the counseling needs of the students and a proactive approach shall be followed.
- b) Counseling sessions will be organized including deploying outside professional, if required.
- c) Mentoring goals will be set. These may include lowering the dropout rate, improving academic performance, enhancing self-esteem, poise, confidence and learning new skills.
- d) Confidentiality must be adequately built into the counseling process. It must be based on informed consent.
- e) All units of the university will maintain pre-defined schedules for mentoring and counseling sessions which will be communicated to all the stakeholders well in advance.
- f) The different units of the university will arrange training of prospective mentors, if required so that they can discharge this function effectively.

6. ASSESSMENT

Assessment is an integral part of the teaching-learning process. Assessment of the students in the course shall be on the basis of two components unless specifically stated otherwise in the study scheme:

- 1) End Semester Examination (ESE)
- 2) Continuous Internal Assessment (CIA)

Continuous Internal Assessment must be an ongoing activity and shall be shall



be conducted with an objective of training a student to put in sustained, steadfast and disciplined effort over the entire period of study. It shall be the responsibility of concerned Board of Study to finalize the scheme of evaluation for a particular course and same shall be recommended to the Academic Council for its approval. Continuous assessment plan shall be designed right in the beginning of semester and shall be communicated to all the students. Summative assessment is a method of judging the outcome of a course at the end of the course activities. This will be conducted by the controller of examination.

Details pertaining to examination / evaluation processes must be made known to students during right in the beginning of semester during the induction program. Weightages of all the assessments, Mid-term/sessional tests, internal assessments, end semester examinations shall be decided as per ordinances/academic regulation or any other guidelines issued by the university.

Post Examination process

Time-bound spot evaluation should be enabled to consolidate and declare the result within stipulated time on the website and individual departmental notice boards. Open House shall be organized as per schedule mentioned in the examination calendar & answer scripts shall be shown to the students as per the laid down SoPs of the university. All examination related information shall be disseminated to the students through website & ERP of the University. The performance of a student should be evaluated in terms of two indices, viz. the Semester Grade Point Average (SGPA) for a semester and Cumulative Grade Point Average (CGPA) which is the Grade Point Average for all the completed semesters at any point in time.

The SGPA is to be calculated on the basis of grades obtained in pass grades, except audit courses, registered in the semester. The letter grade and its corresponding 'Grade Point' indicate the results of both qualitative and quantitative assessment of a student's performance in a course. The grade points awarded are as per the grading scheme given in the first ordinances of the university.



7. REPORTING MECHANISM

Faculty members and designated coordinators for various department level teaching-learning processes shall submit the respective reports to HoD:

- Student Internship Report: Internship Coordinator
- Student Project Report: Project Coordinator
- Result Analysis Report: departmental Result analysis coordinator
- Attainment and Assessment Report of COs and POs/PSOs: Department Academic Committee
- MOOC Credit Transfer Report: Departmental NOOC coordinator
- Report on Initiatives taken for Advanced and Slow Learners by respective Department coordinator
- Report on Overall conduct of Academic Activities during a semester- by Department Academic Committee

8. REVIEW MECHANISM

Each Department will ensure the followings:

- a) Monitor the academic activity inside the class rooms regularly. The department academic committee must review the proper conduct of classes and the quality of content delivered.
- b) Motivate the students to work according to their education responsibility regularly.
- c) Improve the quality of teaching and obtain student feedback on course delivery twice every semester. The feedback forms shall be scrutinized and specific suggestions shall be discussed and incorporated by the Department Academic Committee. If required, action shall be taken up by the Dean of the Faculty and if not resolved, shall be referred to the office of Dean Academics.
- d) A chance should be given to the students to improve their grades by registering for course during the duration of the program.
- e) The department head shall be sending the perspective plan for next year before start of every academic year along with Action Taken Report and outcomes of the previous years' perspective plan to IQAC for its review and further recommendations.



9. RECORD MANAGEMENT

Records of all the teaching-learning and evaluation related activities conducted during a semester shall be maintained by the office of concerned Department Head for five years. All first-hand detailed records shall be managed by the office of respective Heads for further compliances.

10. PERFORMANCE REVIEW AND FEEDBACK

The Deans will monitor the quality and progress of teaching activities and student feedback on the same will be obtained at appropriate times. The result of the performance review will be utilized for corrective action plan and quality Improvement in the next academic cycle.

11. EXIGENCY, IF ANY

Notwithstanding anything stated in these guidelines, for any unforeseen issues arising, and not covered under this, or in the event of differences of interpretation, the Vice-Chancellor may take a decision, after obtaining if necessary, the opinion/advice of a Committee constituted for this purpose. The decision of the Vice-Chancellor shall be final.

For implementation of above guidelines for "Effective Teaching Learning and Assessment" the Standard Operating Procedures as outlined in Annexure "A" shall be observed. For the effective implementation of Outcome Based Education, "CO-PO/PSOs Assessment & Attainment" manual attached as Annexure "B" shall be followed by the departments.



Annexure "A"

STANDARD OPERATING PROCEDURES FOR TEACHING LEARNING AND ASSESSMENT

Standard Operative Procedures for Teaching-Learning and assessment have been formulated to define the processes for the best teaching-learning practices, incorporation of student centric teaching-learning methodologies, ICT integration during classroom delivery, categorization of advanced and slow learners, planning of initiatives for customized teaching-learning methodologies, continuous internal assessment followed by the program outcome attainment and analysis processes.

For effective implementation of the Policy for Teaching Learning and Assessment, the following SOPs under following heads shall be observed at MRU:

- Planning of Teaching and Learning
 - Offering Value Added Courses
 - Offering Courses through MOOCs & Credit Transfer
- Student Centric Teaching-Learning methodologies
- ICT Integration in Teaching and learning
- Advanced and Slow Learners (Assessment Process, Initiatives and Outcome)
- Mentorship
- Internship Evaluation
- Project Allocation & progress evaluation
- Maintaining attendance record on ERP

A.1 Planning of Teaching and Learning

- Dean Academics shall prepare the central Academic Calendar for the upcoming semester
- The same shall be circulated to all the departments after its due approval by Hon'ble Vice Chancellor.
- Once the approved Academic Calendar will be received, the respective Head of the departments shall prepare an Academic cum Activity Calendar based on the academic schedule notified by Dean Academics.



- It must cover up the roadmap for conducting FDPs, Conferences, Workshops, and Industrial visits for students, departmental meetings with class representatives and other day to day activities for students (co-curricular/extra-curricular/entrepreneurship related activities) planned for the semester as per the approved Strategic Perspective Plans of the department. Department Academic Committee shall monitor delivery of lectures by faculty members to ensure proper/ smooth conduct of classes, incorporation of student centric teaching learning methodologies, ICT based teaching learning, conduct of regular meetings with class representatives, uploading of all relevant documents including teaching plan mapped with COs/Bloom's level, course contents, assignments/tutorials, continuous assessment , analysis of department teaching learning processes, feedback and outcome analysis.

A.1.1 Offering Value Added Courses

University offers a wide variety of Value Added Courses for holistic development and empowerment of students. VAC shall enhance the curriculum by amplifying, supplementing, and filling in the gaps, if any. Value added courses are offered for imparting transferable and life skills to all the students with an objective:

- ❖ To provide students an understanding of the expectations of industry.
- ❖ To improve employability skills of students.
- ❖ To bridge the skill gaps and make students industry ready.
- ❖ To provide an opportunity to students to develop inter-disciplinary skills

A.1.1 (a) Designing A Value Added Course

- The department interested in designing a Value Added Course should undertake Training Need Analysis, discuss with the generic employers, alumni and industrial experts to identify the gaps and emerging trends before designing the syllabus.
- Any new Value Added Course developed by a Department should be placed before the Board of Studies and approved by the Academic Council.
- The course offered should not be the same as any course listed in the curriculum of the respective programme/ or any other programme offered by the Department.



- According to the content and target group, the appropriate pedagogical methods should be adopted in the curriculum.
- It is not mandatory to qualify VAC to meet the graduation requirements of any programme and the credits earned through the Value Added Courses shall be over and above the total credit requirement prescribed in the curriculum for the award of the degree.
- It is a teacher assisted learning course open to all students without any additional fee. However, students shall register along with other courses in that particular semester.

A.1.1 (b) Procedure for Registration

- The list of Value Added Courses shall be displayed on the University Website along with the syllabus.
- A student shall register for a Value Added Course offered during the semester on ERP through the concerned Head of the Department.
- The Head of the Department shall get the list of students with choice opted approved from the Dean of School for submission to the Dean Academics & Dean of school offering the particular VAC, in case VACs are opted from other Schools.



A.1.1 (C) Guidelines for Conducting Value Added Courses

- Individual school/department must appoint a VAC coordinator for the smooth conduct of VAC at school/departmental level.
- Industry experts / eminent academicians from other Institutes are also eligible to offer the value added course.
- Value added course should be designed as per the need/requirement of students enrolled in the school/department in a particular program. The duration of the course should not be less than 30 hours in offline mode.
- The school/department VAC coordinator should ensure students' enrollment in one of the Value added courses, offered by the school/department, per program. It is mandatory for students to get registered for one value added course per semester.
- The school/department VAC coordinator must inform students about the requisites (regular attendance and passing the exam) for the completion of course.
- VAC code will be issued for each value added course by the university VAC coordinator. The school/department should get it mapped on I Cloud EMS.
- A syllabus of four/five units along with evaluation scheme (Practical /Jury /Viva /Seminar /Hands-on training /Industrial training /Field visit /Workshop /MOOC) must be designed for VAC.
- VAC brochure must be prepared by the school/department.
- As VAC is a credit/ non-credit but an audit/a passing course, it is essential for students to clear/complete the value added course in which they are enrolled.
- The course can be offered only if there are at least 5 students opting for it.
- The students may be allowed to take value added courses offered by other departments after obtaining permission from Head of the Department offering the course.
- Each student shall have a minimum of 75% attendance VAC Course to appear for end semester exam or get the course completion certificate.
- Relaxation of attendance requirement may be granted for valid reasons such as illness, representing the University in extracurricular activities etc. as per University norms
- Classes for a VAC may be conducted either during the RESERVED Time Slot in a



week or beyond the regular class hours or during weekends or vacation period.

- Student shall be issued a course completion certificate by the school/department duly signed by the Authorized signatories after successful completion of the course.

A.1.1 (d) For I Cloud EMS:

- A catalogue must be created for each value added course.
- VAC must be mapped on I Cloud as a credit/ non-credit and an audit/a passing course.
- Students shall be enrolled on I Cloud.

A.1.1 (e) For Controller of Examination:

Value added course (VAC) shall be added in award sheet as an audit/a passing course with binary grading system, that is, P/F.

A.1.2 offering Courses through MOOCs & Its Credit Transfer

A.1.2 (a) The credit transfer of MOOC (Offered by SWAYAM/NPTEL / COURSERA) against Open Elective at shall be allowed subject to the fulfillment of following conditions.

1. MOOCs should be offered against Program Electives & Open Electives but not for core courses.
2. Department must identify suitable platforms on which MOOCs can be offered.
3. Department review committee for MOOCs must identify the list of courses that they want to offer through MOOCs in addition to electives already being offered during the semester. Mapping of MOOCs should meet the criteria of credit. (For eg -12 weeks course are mapped for 4/5 credits similarly 8 week course are mapped for 2 credits).
4. Department must get the list of MOOCs courses approved from its respective Board of Studies along with the credits and course code assigned to a course followed by its approval from Academic Council.
5. List of MOOCs courses shall be announced in advance and shall be made available on the ERP for registration along with regular courses at the time of course registration.
6. Student must register from the list of approved MOOCs only.



7. The MOOC which is identical (in terms of contents, 20% overlapping is permissible) to any course including Open Elective courses, Minor/Honors courses, etc (If student opt for it) offered by any department for UG students, shall not be allowed for credit transfer if such a course offered by the University is accessible to the concerned student.
8. Head of Parent department will verify and comment on whether the MOOC requested by the student is satisfying criteria mentioned in point 7 or not
9. Head of allied department with whom the discipline of MOOC is matching will verify and comment on whether the MOOC requested by the student is satisfying criteria mentioned in point 7 or not.
10. Only those MOOC courses are allowed for Credit Transfer which have credits more than or equal to the credits assigned to Open Elective course at University OR the MOOC course should be of minimum ten weeks duration. The student can also choose to register and complete more than one MOOC (of same or different subject areas) each of lesser duration. However, the total number of weeks of all such individual courses should be more than or equal to ten and should be from the Platform approved by respective BoS.
11. For MOOC Courses on the platforms where proctored exam will not be conducted, student can take the credit transfer of such courses only if the department to which the MOOC belongs is ready to conduct the examination for that course at University at departmental level. Marks scored by the student in this examination will be considered for the award of the grade for Elective. In this case, student also needs to submit the successfully course completion certificate issued by the corresponding platform to his/her parent department.
12. In case a student cannot clear/pass the MOOCs then student can appear for the supplementary exam conducted by the University and in case unable to clear the same in two attempts as per university promotion policy, candidate will re-register for the same/other course from the same elective basket, PSC registration policy will apply.
13. In case student doesn't register for the selected course in any semester, he/she can register same/other course from the same MOOC basket in any other semester (Odd/Even) provided the desired course is running by selected



platform and his/her total credits of semester does not exceeds the maximum credit limit.

14. Subject Change within the basket during re-registration and supplementary cases are allowed provided changed course should lie in the same elective basket proposed by department.
15. Any other MOOCs which is completed from any platform other than approved platforms will be considered for life skill points as per university norms for the award of degree.
16. New codes are generated every semester for MOOCs. The format for code generation is MOOC-YY-Odd/Even-Department/Allied-Hard/Soft For Ex:-MOOC-220-CAS-201 represents an allied course proposed by CST department in odd semester of academic year 2022.
17. SPOC of specific platform will allocate the mentors for every course in which students are enrolled who will monitor and guide the students throughout the course for any technical and course related issues.

Note: A student will be eligible to get B.Tech with Honors if he/she completes additional credits through MOOC's. (AICTE Model Curriculum, Chapter 1(B)). Following pattern will be followed for earning additional credits for the award of Honors degree:

The earned credits shall be accepted and transferred to the total credits of the concerned students by the University for Completion of his/her degree. Credits earned through MOOCs will be incorporated in the mark sheet issued to the student by Controller of Examination.

Credits for MOOC's will be verified by the concerned department and will be forwarded to examination department for result mapping.

A.1.2 (b) The following process will be followed before registration and after completion for MOOC

1. Student will submit an application 'Application for Permission to Opt MOOC for Credit Transfer against Elective of that particular Academic session addressed to Head of parent department clearly mentioning his desire to complete MOOC along with, title of MOOC, host platform and credits.
2. After getting written permission from HoD of parent department, the student will submit the same Application to Departmental MOOCs Coordinator.



3. If the MOOC course in which the student is interested does not fall in the parent discipline of the student and belongs to other discipline, the Departmental MOOCs Coordinator will seek opinion of concerned HoD to verify the matching of content of MOOC with that of Elective courses/Minor courses, etc (if student opt for it) offered at the University.
4. If the above mentioned conditions are fulfilled, the Departmental MOOCs Coordinator will recommend the case for final approval and accordingly notify to the students.
5. After getting approval from Dean Academics, the student may register for the MOOC course he/she is allowed for and complete the same as per the requirements of Host Institute.
6. In case the MOOC platform doesn't conduct proctored exam, department to which such MOOC belongs will conduct test and submit the marks to the Departmental MOOCs Coordinator of student's parent department.
7. At the end of the semester, Departmental MOOCs Coordinator will prepare the list of students with the details of the MOOC(s) students have completed.
8. For the verification of the certificates, Departmental MOOCs Coordinator will send certificates of the SWAYAM-NPTEL courses to the University SPOC, SWAYAM-NPTEL Local Chapter, and for MOOCs on other platforms to the Head of student's parent department for in person verification.
9. Departmental MOOCs Coordinator will submit final list of the students who are recommended credit transfer against Electives to Examination cell through respective Head & Dean of School.
10. Departmental MOOCs Coordinator will submit all original documents in a bound volume to Controller of Examination for preserving as a record for all future purposes and maintain the photocopies with the office of Dean Academics.



A.2 Student Centric Teaching-Learning

Methodologies

Departments shall incorporate student centric learning methodologies which involves students as active learners and helps them to evolve as critical thinkers and problem solvers instead of being a passive learner.

- Course coordinators shall prepare their comprehensive lesson plan mapped with respective course outcome statements while mentioning the mode of delivery.
- The same shall be uploaded to EMS after planning the sessions as per the approved Academic Calendar.
- The HoD shall check the uploaded session plan particularly for mentioned mode of delivery and approve the session plan on EMS before the commencement of classes.
- Department Academic Committee shall monitor the compliance of session plan incorporating student centric teaching-learning methodologies and submit the report to Head of the department. DAC members must monitor the exposure of students to case studies, major design experiences in their area of interest to complement their problem-solving skills acquired in earlier course work and provide them a platform for collaborative & life-long learning.
- Head of the department shall appoint the industrial visit coordinator, summer internship coordinator, Student's event coordinator, feedback coordinator etc. before commencement of the classes.
- Departments shall organize at least one industrial visit for students of each semester, industrial visit coordinator will submit the proposal for subsequent approval.
- Internship coordinator must guide students for summer internships at industry and institution.
- Student's event coordinator must coordinate to organize regular expert talks, seminars, conferences, quizzes, Soft skill and Personality development classes, Experience sharing sessions with Entrepreneurs etc. for students to complement the classroom-based curriculum delivery.
- Department project coordinator must guide students to showcase their



project designing and development skills at various National and International Platforms.

- Each coordinator shall present his/her annual plan during the month of April/May so that the approved plans will be included in the Department's Strategic Perspective Plan.
- Post event report shall be submitted to HoD by respective coordinators.

A.3 ICT integration in Teaching and learning:

The university campus is equipped with all the latest ICT amenities for the benefits of the students and faculty members. Use of ICT tools and e-resources must be ensured in teaching and learning by all the departments. Classroom-based curriculum delivery must incorporate at least 50% of delivery through ICT based tools and e-resources.

- i. ICT tools like projectors, virtual classrooms, supplementary audio-video and e-resources must be incorporated in to teaching and learning.
- ii. Teachers must improvise e-learning resources like National Program on Technology Enhance Learning (NPTEL), NITTTR Chandigarh Technology Enabled Learning (NCTEL), MOOCs through SWAYAM/Coursera/edx, spoken tutorials, virtual labs etc in teaching- learning methodologies while promoting blended learning.
- iii. IT and team shall ensure that students must get all ICT support in the classrooms. All students must be provided with lifetime institutional email IDs along with and other e-resources for not restricting their usages within campus computer labs. All staff and faculty members must be provided with official email IDs and IDs for conducting internet based online remote classroom to the students,
- iv. Faculty members, research scholars and students must be provided with plagiarism monitoring facility by the library officials.
- v. Each course coordinator will ensure that students must be made available with the learning material for each course via: the syllabus, assignment / tutorial sheets and lecture notes through education management system.



- vi. Regular trainings on the latest system, use of the available IT infrastructure, uploading of course contents, lesson plans and creation of assignments/ tutorials, question banks, marking of assignments, tutorials, attendance record maintenance, attainment of course and program outcomes, conduct of surveys for indirect attainment etc must be conducted by IQAC for faculty members to make them understand all the existing and new modules of education management system.
- vii. Faculty members must work towards the development of e-content of their respective courses.

A.4 Advanced and Slow Learners (Assessment Process, Initiatives and Outcome)

The performance of a student in any subject depends on many factors like student's attendance in the class or laboratory, teaching methodology, prior knowledge of the subject and others. It is the responsibility of concerned faculty to identify Advanced Learners/ slow learners in his/her class through their previous performance in the subject that is pre-requisite for the current semester courses or class performance. For slow learners, course Coordinator shall schedule remedial classes for all such candidates within a month from the start of semester. Performance of these slow learners shall be analyzed on regular basis through feedback and their performance in classes and other assessments to evaluate the effectiveness of remedial classes. Opportunity shall be given to advance learners either to earn extra credits through MOOCs for the award of degree with honors/specialization or utilizing his/her time from laboratories and tutorials to work on project/start up activities as per his/her choice. Following steps shall be followed by the department in such cases:

A.4.1 Slow Learners:

- Identify the slow learners right in the beginning of semester (within a week) based on student's performance in the course that is pre-requisite for the current course.
- Faculty should pay more attention to these slow learners and carefully monitor their performance in the classes.



- In case of unsatisfactory performance, Faculty must schedule remedial classes for slow learners on working Saturdays and free slots available during the week, in coordination with class mentor (preferably within a month from the start of semester).
- All slow learners shall be asked to mandatory register for the special classes/remedial classes and attend as per schedule shared with them.
- HOD should closely monitor the performance of slow learners' and take their feedback as well by formal interaction every fortnight.
- Faculty must analyze the students' performance after every month and submit the same along with proposed strategies for further improvement to their respective Head of the Department
- All the course coordinators/Faculty must maintain the complete record of following documents in their course file with respect to slow learners:
 - List of candidates identified as slow Learner in a particular subject
 - All notifications issued related to remedial classes
 - Timetable for Remedial Classes
 - List of students registered for the course
 - Extra assignments conducted or measure taken
 - Attendance record
 - Performance analysis (pre & post)
 - Student Feedback
 - Outcome attained for all the advanced learners and its evaluation to close the loop

A.4.2 Advanced Learners:

- Identify the advanced learners right in the beginning of semester (within two weeks) based on student's performance in the course that is pre-requisite for the current course and class performance.
- For advanced learner different opportunities shall be provided to the students in terms of earning extra credits, working on projects, startups or research activity as per his or her interest under the faculty mentor.
- Department shall constitute a committee to approve the list of all such advance learners of the department in every batch.



- Such students shall be given choice to take up any such activity in addition to the courses he/she has registered for during the semester.
- Faculty mentor should guide such students and monitor their progress in the activity of their choice for the attainment of outcome.
- Measuring the attainment of expected Outcome through continuous evaluation
- Course coordinators/Faculty must maintain the complete record of following documents in their course file with respect to advanced learners:
 - List of candidates approved as advanced Learner in particular subject(s)
 - Project/research activity/Course for earning extra credits advanced learner registered for and mentor assigned
 - Documents related to all assessments on the activity
 - Student Feedback & Faculty feedback
 - Student progression reports indicating performance improvement of slow learners to close the loop

All these activities would be reported to the respective HoD by the overall coordinator for advanced and slow learners. The consolidated report w.r.t initiatives taken for advanced and slow learners shall also be submitted to the HoD by the overall coordinator. All these activities shall be closely monitored by the office of Dean Academics.

Apart from these customized teaching-learning strategies for advanced and slow learners, the average learners (with assessment score greater than 40% and less than 75%) would be given equal opportunities to excel their talent and be part of all the activities being conducted in the department/University including career counselling, competitive guidance, enrollment in MOOCs/value added courses, participation in expert talks/workshops, research paper writing guidance and publication, personality development classes, enrollment in crash courses for preparation towards placement etc.

Throughout this exercise, an utmost care needs to be taken to ensure that this does not lead to any decrement in the morale and disposition of the slow-learners. This endeavor must be aligned as a path-correction rather than pointing out to slow-learners any kind of incompetence or inadequacy.



During the course of any semester, performance will be analyzed as per the criteria defined in Table 1, to plan and implement actions for subsequent performance improvement during the semester. The progression of achievement of students with respect to previous semesters shall be recorded to assess their advancements and subsequent interventions.

Table-1: Assessment of Learning Levels of the students

Assessment of Learning levels at:	Assessment Parameters	Weightage
Entry level Top 10-15% students' Advanced learners Bottom 10-15% students: Slow learners	Student's Academic Performance in the qualifying examinations.	
Later stages This analysis is done for all students of each class. If the total assessment marks are less than or equal to 40%, the student will be identified as slow learner and if it is equal or greater than 75%, he/she will be identified as advanced learner.	Preceding University End Semester Examination	20%
Note: In case, no student fits in the above-mentioned window, department may categorize students as per the following criteria:	Performance in Sessional Test-I /lab semester viva-I/ semester- research presentation-I/ semester-seminar presentation-I.	60%
	Course teacher observation (Teacher assesses each student on the qualitative scale of 1 to 10)	20%
On the basis of total assessment marks-		
Top 10-15% students: Advanced learners		
Bottom 10-15% students: Slow learners		



A.5 Roles and Responsibilities of Mentor

Each faculty member shall be allocated with 20 students under the mentoring system. Mentors would regularly meet students to solve their problems, track their progress in academics, co-curricular activities, personality development, communication skills, career counseling, holistic development, life skills and interpersonal relationships. Proper records shall be maintained by each department in respect of student counseling. Following are the responsibilities of the mentor:

- Communicating the mentee about all the academic and administrative processes of the university in the beginning of first semester and from time to time
- Communicating the departmental / University directives & information to the mentees
- Ensuring his/her course registration being done as per Promotion Policy of the University and maximum credit limit of the program(kindly refer to the University Promotion Policy & Academic Regulations)
- Keeping record of his/her attendance record and academic performance through regular interactions and meetings with subject faculties and connecting with parents on weekly basis for the defaulters.
- Providing attendance & performance records of all the mentee students to Head of the Department/ Coordinator for the review process, whenever desired. They shall scrutinize critical cases and would suggest corrective measures. If necessary, they shall call Parents for discussions.
- Any discrepancy in the student behavior like short attendance, poor performance in academics etc. will be analyzed and the student will be counseled with care.
- Conducting meetings every fortnight with mentees, understanding the challenges they are facing, resolving their issues and communicating with the concerned authority wherever required.
- Connecting with parents in case he/she is absent from classes for more than three days.
- Informing parents about the performance of their ward from time to time
- Counseling the mentee while opting for elective courses or opting courses through MOOCs
- Counseling the mentee for placement and career progression
- Maintaining record of student progression by keeping details of his/her results.



- Maintaining record of the clan points of mentees and hard copies of all the relevant documents/certificate/research papers etc.
- Maintaining record of medical cases (medical certificates, prescriptions & any other evidence if applicable) and getting it approved from the concerned authority within the defined time frame.

The aim of such a support system is to help the students to cope up academically, give personal counseling, extend career guidance; support co-curricular activities coordinate welfare activities, interact with parents, seek students' involvement in pursuit of university vision and objectives and establish healthy, cooperative and a salubrious academic ambience in the university. They would always be counseled to develop professional competitiveness as well as ethics, human values, sense of social responsibility and environmental consciousness.

A.5.1 Reporting Mechanism and Record Management

The mentorship files shall be maintained by each faculty mentor as per the guidelines and performa of student mentorship. At the end of the semester, records shall be submitted to the head of the department. The consolidated report on mentorship shall be submitted by HoD through respective Deans/Directors for the review of IQAC.

For effective implementation of this Policy for Student Mentoring System, the Standard Operating Procedures shall be observed.

A.5.2 For effective implementation of the Student Mentoring System, the following SOPs shall be observed at MRU:

- The department will assign a mentor for each student in the first semester of their programme.
- Each HOD along with the senior professors/faculty members of the department will review and finalize the allocation of mentors and mentees at the start of each semester. The updated list shall be notified time to time depending upon new admissions, appointment /resignation of faculty members etc.
- A mentoring schedule for formal interaction of student and mentor throughout the semester will be prepared in such a manner that each student will get an opportunity to meet with the mentor preferably once in 15 days.



- The finalized allocation and schedule of mentor-mentee interaction shall be notified to the students by respective head of the department/mentoring coordinator of the department
- Each mentor will maintain a complete mentor file including contact details of assigned mentees and their parents, sessional and end semester examination records of each mentee, attendance records, all records of details of interaction/meetings with mentees and mentee diary of each mentee as per Appendix 1.
- The day-to-day issues of mentees, if any will be resolved by the respective mentors.
- Mentors will track the performance (attendance, academic performance and performance in extra-curricular activities) of respective mentees. They will counsel the respective students as per their records and communicate the same to their parent through email/telephonically.
- Student issues which require intervention of head of the department will be reported to head of the departments by respective mentors. Such issues will be resolved at the HoD level along with consultation of senior faculty members.
- Each mentor will interact with the assigned students and assess the counseling needs of the students in formal or informal way. If required, practical counseling sessions may be organized including outside professional.

A.6 Standard Operating Procedure for Industrial Internship Evaluation

- Constitution of Department Internship Committee (DIC)/ Appointing Overall Internship coordinator
- Notification by Overall Internship Coordinator to students to collect Request letters in case they want to pursue at their level.
- Request Letter to be signed by respective HoD in the name of specific Organization/ Company in which he/she wants to undergo an industrial training.
- Office copy of the letters sent by the various companies requesting permission for the industrial training to be maintained by Overall Project Coordinator.
- Letter of Acceptance/ Permission issued by the company along with requisite detail of the company, contact person in response to the request letter issued by the University.



- Notification for meeting of the DIC for analysis of acceptance and giving recommendations for approving the case to undergo Industrial training in the company.
- Submission of recommendations of DIC quoting the date of its meeting: Name and Roll No. of student: approved company for training.
- Letter of approval in the name of company/ organization to individual student for undergoing industrial training in that specific company under signature of HOD along with schedule of training: Date of Start, Duration, Mid Review, Copy of Feedback report format etc.
- Notification by HoD for meeting of DIC for finalizing the list of faculty members assigned the duty for supervision of industrial training.
- Notification by the overall coordinator notifying the list of faculty members assigned the duty for supervision of Industrial Training with their roles and responsibility
- Notification by HoD/ overall internship coordinator for meeting with DIC to finalize the schedule for mid- review of industrial training of all the students.
- Evaluation shall be as per the approved scheme and syllabus of respective program.
- Notification of mid- review of industrial training of all the students undergoing industrial training along with signature and stamp of HOD or overall internship coordinator with a copy to all designated faculty supervisor to further communicate with their respective assigned students.
- Notification by HoD/ overall internship coordinator for meeting with DIC to finalize the schedule for final viva and presentation of industrial training of all the students
- Notification final viva, presentation and submission of internship report of industrial training of all the students along with signature and stamp of hod or overall internship coordinator
- Internship reports of the students and certificate of successful completion and feedback report from the industry (duly signed and stamped) issued to the students.
- Preparation and submission of consolidated report to IQAC.



A.7 Project Allocation and Progress Evaluation

A.7.1 Process to be followed for identification and allotments of projects:

- Notification for constitution of Departmental Project Committee (DPC)/ an overall project coordinator and co-coordinators, id required.
- The committee is to be constituted of one senior Professor and two /three faculty members from the department.
- A pool of proposed projects to be prepared by overall project coordinator and notified to students based on ideas collected from domain experts in the department. Alternatively, a student may identify the topic or may bring his/her own idea. Further, student needs to obtain consent of the department faculty members for supervision.
- Notification of meeting of DPC by HoD to review the list of project proposals received
- Final approved Project Topics List with names of students, their groups and Supervisors to be notified by the HOD after consultation with DPC.
- Notification by overall coordinator for students to do extensive literature survey as it is the most important part which gives a direction to the area of research and to present their ideas through power point presentations to DPC and project guides.
- Notification by overall coordinator to students for submission of project synopsis to the project guide. Synopsis is an 8 to 10 pages document which briefly outlines the technical area, literature reviewed, objective, methodology, block diagram, work flow graph and software / tools to be used along with the application areas of the project.

A.7.2 Continuous Monitoring

- The student group is required to work on their topic of interest, and is required to have regular meetings with the project guide to discuss the project work.
- The Project Coordinator will closely monitor the progress of every student in consultation with the project guide.
- Project-Diary needs to be mandatorily maintained; where in all day-to-day activities of the project will be recorded. The inspection of the Project-Diary will



also be done regularly to get a detailed account of how the project is progressing.

- The evaluation of the project will be done centrally by the DPC. Committee will conduct the mid-term review as well as the Final assessments of the project. The committee will also monitor the progress in between, through making regular contact with the project coordinator and the guide.
- The assessment done by DPC will become the basis for final grades. All those projects, which will be running slow and not progressing well, will be kept under close watch with periodic warnings being issued to the concerned students.
- Notification Final Viva, Presentation and submission of Project Report of all the students along with signature of HOD or Overall Project Coordinator
- Preparation and submission of consolidated report to IQAC.

A.8 Maintaining Attendance Record and uploading it on ERP

- Faculty must maintain the attendance record of the students for his/her subject in hard copy and upload the attendance on ERP on daily basis within 24 hours of the conduct of class
- In case, faculty is unable to mark the attendance within 24hrs that slot in faculty time table will get freeze on ERP and can unfreeze only on special request to Dean Academics (with the approval of Head & dean of School) within next 3 working days. No such requests will be entertained thereafter.
- It is the responsibility of a faculty to adjust his/her classes before proceeding on any kind of leave. In case faculty has to go on leave due to some emergency, HoD must be informed about the reason and department time table coordinator must make necessary arrangements and shall ensure that no class should go unadjusted.
- Faculty must either exchange his/her class with other subject teachers in advance or after joining back from leave or may schedule an extra lecture if adjustment is not possible. This will avoid academic loss of the students in that particular subject and session plan is also being followed properly for course coverage.



- In case of faculty is taking leave, the concerned faculty can mark attendance on ERP from home as well for the lecture adjusted by another faculty member.
- While keeping attendance record of students in hard, faculty must be vigilant about the regular defaulters and those who are absent continuously for three days. Mentor shall be informed about such case for further action.
- It is the responsibility of the faculty to keep students informed about their attendance status from time to time and if required can connect directly with parents for their information and corrective action.
- Maintaining attendance record in hard copy and marking absentees with red color helps in easily identifying the regular defaulters.

Such small initiatives will help in reducing number of detentions, improving university discipline, academic processes and student's performance as well.

Role & Responsibilities of Course Coordinator

Department must assign Course Coordinator for every course. If a Course is being delivered in one section only then the faculty teaching that particular course is the course coordinator. A programme having multiple sections/ being delivered in multiple programs and is delivered by more than one faculty; an experienced senior faculty shall be assigned the responsibility of Course coordinator. Following are the responsibilities of course coordinator:

- Plan and design the session plan in consultation with faculty members teaching the same course.
- Decide in concurrence with fellow course instructors the Course assessment plan, the syllabus for mid-term exam, structure of examination papers, BT Level and detailed rubrics for all the assessments in the beginning of course
- Finalizing the list of Projects/Case studies etc. in consultation with all the fellow course instructors in case course is to be delivered in PBL Mode
- Designing the list of activities for delivery of course through interactive pedagogies
- Designate faculty members, delivering the course, for preparation of course material and uploading on ERP



- Uploading the session plan and course material on ERP and get it reviewed by Departmental Review Committee
- Holding meetings of course instructors to monitor uniform progress of course, which includes course covered in Lectures, Tutorial sheets, Continuous assessment and Lab work done.
- Providing question paper for Mid Term and End Term examinations to the examination cell as per examination schedule
- Collating student's performance in all the assessments on regular basis, analyzing their performance and taking corrective measures wherever required.
- In case any faculty leaves the university in the middle of the semester, it is the responsibility of course coordinator to collect all the assessment records from the concerned faculty. In case the concerned faculty himself or herself is the course coordinator then all assessments shall be submitted with Head of the department before getting relieved from duties.



Guidelines & Procedure for Conducting Feedback

The objective of the feedback process and its SoPs for implementation is to provide a framework for gathering, compiling, summarizing, and documenting data on feedback from various stakeholders, including students, faculty members, alumni, parents, and employers, on the effectiveness of the various curricula, academic/administrative procedures, and the general environment of Manav Rachna University (MRU).

Objective:

The main objectives of Feedback Process and SoPs for Implementation are:

- a) By collecting and carefully examining timely feedback from all stakeholders, curriculum quality can be monitored and improved.
- b) Creating possibilities for ongoing curriculum quality improvement.
- c) Providing everyone with a stake in a programme of study the opportunity to actively engage in its continuous improvement through feedback mechanisms.
- d) Identifying, compiling, and putting into effect best practises for curriculum development.
- e) Establishing a connection between student and other stakeholder feedback and the methodical improvement of curriculum quality.

Type of Feedbacks and Responsibilities:

Following stakeholders' feedback shall be put in place by all the departments to improvise the academic (curricular, teaching learning processes, co-curricular aspects) and administrative processes and generic facilities:

- i. Students Course Feedback (on Content Delivery and Teacher)
- ii. Annual 360° Students' Feedback
- iii. Faculty Feedback
- iv. Alumni Feedback
- v. Parents Feedback
- vi. Employers Feedback



The different feedback forms to be used to take the feedback of stakeholders broadly covering the following parameters/attributes are annexed:

- Suitability of present curriculum towards program
- Relevance of courses taught in terms of futuristic technologies
- Extent of Flexibility in the Curriculum
- Balance between theory and lab-based courses
- Overall effectiveness of syllabus
- Extent of research and industry demands meeting in the curriculum,
- Outcome Based Education & Lifelong Learning
- Institutional Discipline and Culture
- Infrastructure Facilities
- Communication from Institute about the progress of ward
- Career Guidance and Placement • Inculcation of Interest and Motivation
- Value Added Inputs
- Co-Curricular and Extra Curricular Activities
- Industry Alliance
- Moral Values, Ethics and Social Activities
- Accessibility of faculty and senior staff
- Handling of Grievances etc. etc

Every department must assign a coordinator who will be in charge of ensuring that all stakeholders' feedback on curricula, academic delivery, administrative assistance, and other generic facilities is handled smoothly and on a regular basis according to established processes. The relevant department will also be solely responsible for the thorough analysis of all stakeholder feedback. Then, in accordance with the established SOPs, the HoDs, in conjunction with their respective Deans, shall transmit the analysed reports of feedback from all stakeholders together with appropriate suggestions and proposed actions to be done, to all concerned sections of the university. Based on these reports, curriculum committee at the Faculty/School level will compile the final decisions made by all the departments regarding the recommendations and suggestions made by the stakeholders regarding curricula, and it will then be presented to the Academic Council for its final review and any additional guidance that may be necessary.



Review Mechanism

The feedback system must undergo regular evaluations with the goal of continuously improving it. Changes in the requirements of regulatory bodies' must be examined at the time of review and properly incorporated into the system. The Faculty/School level Committee for "Feedback on Curricula" will assess the suggested measures by the appropriate department with regard to curricula after accumulating and analysing feedback from all stakeholders at the department level. The IQAC will do the final review of the recommendations made by the committee and the appropriate departments for "Feedback on Curricula" on other facilities to determine its final recommendations and next steps.

Standard Operating Procedure

For the purpose of effectively implementing the stakeholder's feedback, the following six steps, which serve as standard operating procedures, must be followed:

- I. Establishment of Departmental Feedback Committees
- II. Getting Stakeholders' Opinions And Feedback
- III. Feedback Reports Compilation
- IV. Analysis of Evaluation Reports
- V. Reports on Actions Taken
- VI. Final Review of the Action Taken Reports

1. Establishment of Departmental Feedback Committees

In order to coordinate the conduct of feedback from stakeholders, collations, compilations, and report analysis, the respective Head of the departments must establish and inform the feedback committee at the start of the academic year.

The departmental level committee's proposed structure is as follows:

- Feedback Coordinator of the Department
- Departmental Placement coordinator
- Departmental Alumni Coordinator



However, depending on the strength of the student groups in the departments, the HoD may induct more members to ensure proper execution.

2. Getting Stakeholders' Opinions and Feedback

The student course feedback regarding the course & delivery of content may need to be collected twice during a semester, preferably during the mid-semester & end of the semester. The departmental overall feedback coordinator will monitor the conduct and collaborate with other faculty members for its proper execution.

The designated departmental overall feedback coordinator shall associate with the other faculty members of the department to collect feedback from the students during their end-semester practical examinations for the Annual 360° Students' Feedback covering students' broader experience about their studies and curriculum and available generic facilities in the campus.

For collecting the feedback from Alumni and employers, the Department's designated alumni coordinator and placement coordinator in collaboration with CRC shall do so either directly with alumni and employers during their visits to campus or by getting in touch with them on an annual basis. The formats that will be utilized to obtain feedback from various stakeholders are attached as Annexure

3. Feedback Reports Compilation

The Departmental Feedback Committee is responsible for collecting and compiling all feedback reports on an annual basis at the end each even semester, with the exception of student course feedback on content delivery, which is compiled during the semester itself and is submitted to the respective HoD.

4. Analysis of Evaluation Reports

After the receipt of the feedback reports, the analysis of the compiled reports of Students Course Feedback on Content Delivery, Annual 360° Student's Feedback and Faculty Feedback shall be carried out under the respective HoD by associating Department Academic Committee and for by associating respective coordinators for rest of feedback reports.



The respective HoD shall share the feedback report with concerned Dean before submitting it with the central level Committee for "Feedback on Curricula" established by the Vice Chancellor of the University for its suggestions and recommendation. This Committee shall then forward its consolidated reports to IQAC for its perusal, review and further recommendations.

After consulting with the respective Deans of Faculties, the HoDs shall directly send the analysis of the feedback reports regarding the campus's comprehensive facilities to the IQAC for its perusal, review and further recommendations.

5. Reports on Actions Taken

After the IQAC members have reviewed the feedback, the IQAC will send its recommendations to the respective HoDs and administrative sections for any further action that may be required. The IQAC may advise the respective HoDs for the incorporation of all the suggestions. When it comes to introduction of new courses or proposed changes to existing courses, the BoS may make additional recommendations to Academic Council for its final approval.

The Annual Feedback Reports of their respective departments, along with Reports on Actions Taken, are to be prepared by all HoDs and submitted to IQAC for its evaluation.

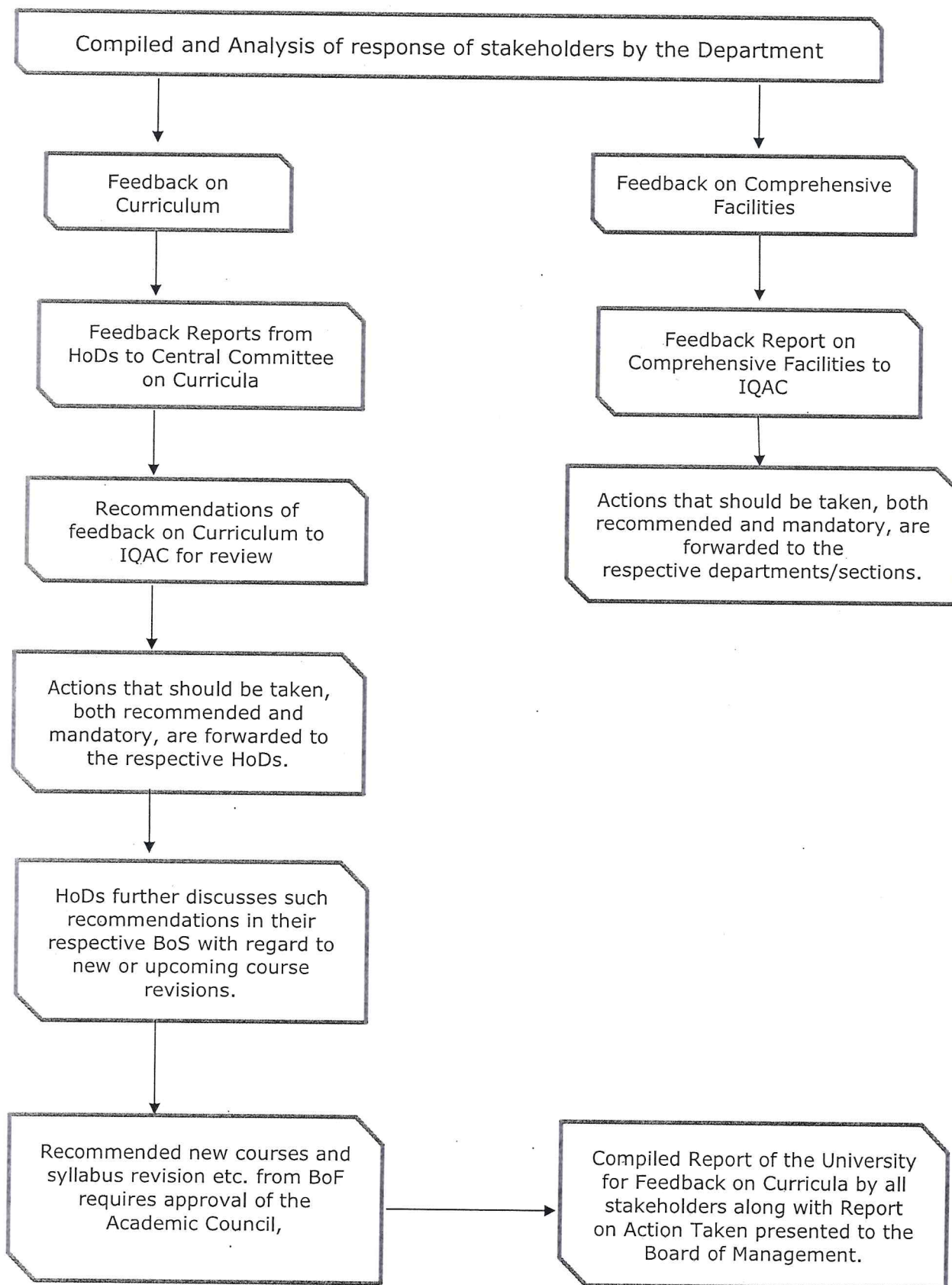
6. Final Examination of the Action Taken Reports

Final submission of the consolidated Annual Reports on Feedback with Action Taken Report shall be finally submitted by the HoDs to IQAC for its review. According to the guidelines all the HoDs shall preserve the copy of the same.

The detailed feedback report compiled on the basis of feedback received from all the stakeholders, its analysis report, recommendations, and any further actions taken will be provided to the Board of Management for its perusal and, if necessary, further guidance.



Flow Chart



MANAV RACHNA UNIVERSITY
FACULTY OF.....
DEPARTMENT OF CHEMISTRY

Mentee File

Name of Mentor:

Name of Department:

Name of Programme:

Batch:

Academic Session:

Contents:

1. Details of the Mentees
2. Mentees Record (Examination, Attendance and Achievements)



1. Details of Mentee

Name of the Mentee:

Program Registered:

Roll No.:

DOB:

Age (at the time of institute joining):

Category:

Religion:

Nationality:

Adhar card number:

Medical History:

Blood group:

Marital status:

Permanent Address:

Contact Detail:

Email id:

2. Parent Details

Name of the Father:

Occupation of Father:

Contact Number of Father:

Email id of father:

Educational Qualification of father:

Name of the Mother:

Occupation of mother:

Contact Number of Mother:

Email id of Mother:

Educational Qualification of Mother:

Family Income:

Sibling details:



For Hosteller only:

Name of the local guardian:

Contact number:

Email id:

Address:

Relation with the mentee:

Name of hostel in which he/she is residing:

Contact details of the hostel:

3. Performance details:**a) Details of Qualifying Examination:**

Exam Passed	Institute	Board/ University	Year of Passing	Percentage	Language of Instructions
X					
XII					
UG/Sem 1					
Sem 2					
Sem 3					
Sem 4					
Sem 5					
Sem 6					

b) Details of co-curricular, extra-curricular and cultural activity participation:

S. No.	Name of the activity	Venue	Participant/Winner	Clan points gained
1				
2				
3				

C) Research, Innovation and Entrepreneurship activity:

Published an article in magazine, newspaper, journal, etc:

4. Performance, observation and suggestion during the tenure in the institution:

At the time of inception of the program

a) Knowledge

(Initial knowledge, good in which subjects, poor in English speaking, etc)

b) Skills

(Classical Dancer/ fine arts/ technical skills/ debate/ sports/ literary area)

C) Behavior

(Introvert/ extro/ moderate)



a) Meeting with Mentor:

S. No.	Date	Time	Semester	Venue	Issues raised	Issues resolved	Sign of mentor
1							
2							
3							
4							

b) Mentor's remark:

Semester 1

Reviewed by HOD

Semester 2

Reviewed by HOD

Semester 3

Reviewed by HOD

Semester 4

Reviewed by HOD



Annexure "B"

Manual for CO-PO/PSOs Assessment & Attainment

MANAV RACHNA UNIVERSITY, FARIDABAD

PROCESS MANUAL: ASSESSMENT AND ATTAINMENT OF LEARNING
OUTCOMES (ASSESSMENT PROCESS, INITIATIVES AND OUTCOME)

Credibility of the evaluation system is highly important to maintain the rigorous regime of teaching learning processes at University. The assessments & evaluation process shall be able to demonstrate to all of its stakeholders, especially students, employers, community organizations and regulatory bodies, that the program outcomes of its academic programs are comprehensive and that teaching activities are designed to provide equivalence in learning experience and outcomes. In line with the University vision and Mission, all the academic programmes shall be outcome based. The curricula designed will be aligned towards the attainment of Program Educational Objectives (PEOs), Program Outcomes (POs) and Program Specific Outcomes (PSOs). Every stated objective and outcome can be assessed and evaluated. The student centric teaching-learning methodologies shall be integrated to complement traditional methods and the attainment of these program outcomes.

The university departments' shall focus on Student learning by:

- Using Learning Outcome Statements to make explicit what student is expected to be able to know, understand and do
- Creating learning activities which will help the student to reach these outcomes
- Assessing the extent to which the student meets these outcomes through the use of explicit assessment criteria

The implementation of outcome-based education involves:

- Establishment of Mission statements in line with the vision of the department & Program Educational Objectives
- Mapping of Mission Statements with Program Educational Objectives (PEOs)
- Defining POs with Bloom's Taxonomy
- Mapping Program Educational Objectives with Pos
- Defining CO (Course Outcomes) with Bloom's Taxonomy for each Course



- Mapping COs with POs to create articulation table
- Mapping contents and Assessment Pattern with COs of each course
- Defining pedagogical tools for course delivery and attainment of outcome
- Preparing session-wise Course Lesson Planner
- Mapping Questions with CO's at Bloom's Taxonomy levels & Assessment
- Tracking students' performance during the course delivery & taking proper remedial measures
- Measuring the attainment of each CO through Direct / Indirect assessments.
- Measuring semester-wise students' performance against POs threshold
- Measuring the attainment of each PO through Direct/Indirect assessments
- Analyzing PO attainment and propose remedial actions
- Planning continuous quality improvement action
- Assessing the attainment of Program Educational Objectives

Each University department will:

- a. Ensure that the quality of the education it provides is of the highest standard and commensurate with the expected standards.
- b. Continuously improve the quality of the education it offers to students and
- c. Implement IQAC approved policies and procedures to enable it to fulfill regulatory bodies requirements in relation to educational quality and academic standards.
- d. Maintain Course Outcomes (COs)-Program Outcomes (POs)/Program Specific Outcomes (PSOs)-Program Educational Objectives (PEOs) assessment and Attainment manual.



MANAV RACHNA UNIVERSITY, FARIDABAD

FACULTY OF

DEPARTMENT OF

COs-POs/PSOs-PEOs Assessment and Attainment Process Manual (AY.)

1. UNIVERSITY VISION AND MISSION

Vision of the Institution:

To educate students in frontier areas of knowledge enabling them to take up challenges as ethical and responsible global citizens

Mission of the institution:

- To impart outcome based holistic education
- To disseminate education in frontier areas
- To produce globally competitive, ethical and socially responsible human resources
- To produce human resources sensitive to issues of Environment and Sustainable Development
- To develop Environment and Sustainable development as a thrust area of research and development.

The mission is fully reflective of the distinguishing characteristics of the university in terms of need of the society, skills, competitiveness, global graduate attributes and the values & vision of the university. The diversity of courses offered by the university in various domains, the pedagogy and other related activities that can aid to the holistic development of the students and address the different needs of the society helps in the attainment of University vision. The university places high importance on moral and ethical values. Institutes tradition and value orientation is also imparted through its course on Universal Human Values and Life Skills.



2. DEPARTMENT VISION AND MISSION

Vision of the Department:

Mission of the Department:

3. PROGRAM EDUCATIONAL OBJECTIVES

The Department of keeping in view Interests of all their stakeholders have formulated the Program Educational Objectives (PEO's) that are comprehensive statements describing the career and professional accomplishments that the program is preparing the learner for.

Department's Program Educational Objectives (PEOs) are derived from the Department's Vision and Mission.

PEO's of Program in are:

PEO 1:

PEO 2:

PEO 3:

PEO 4:

PEO 5:

The Program Educational Objectives of Program are consistent with the Mission of the department of Manav Rachna UNIVERSITY (MRU), and the PEOs flow naturally from the Missions of MRU.

4. PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES

Department POs & PSOs are listed as below:

PO1

PO2

P3

P4

.

.

POS and so on

PS1

PS2

PS3



5. MAPPING OF DEPARTMENT MISSION STATEMENTS AND PEOS

The matrix showing mapping of mission statements of the department with PEOs is as below:

PEO Statements	Mission 1	Mission 2	Mission 3	Mission 4	Mission 5
PEO1:	3	-	2	-	-
PEO2:	-	1	-	2	3
PEO3:	1	-			
PEO4:					
PEO5:					

The PEO-Mission statements mapping is described by its 'Affinity (correlation)' level as following:

--Low (Slight): 1

--Medium (moderate): 2

---High (Substantial): 3

6. MAPPING OF PROGRAMME EDUCATIONAL OBJECTIVES TO PROGRAM OUTCOMES / PROGRAM SPECIFIC OUTCOMES

The matrix showing mapping of POs/PSOs of the department with PEOs is as below:

POs PEOs	PO 1	PO 2	PO 3	PO4	PO5	PO6	PO7	PO 8	PO 9	PO10	PO11	PO 12	PSO 1	PSO 2	PSO 3
PEO 1	3	2						1	2						
PEO 2															
PEO 3															
PEO 4															
PEO 5															



The PEO-POs/PSOs mapping is described by its 'Affinity' level as following:

- Low (Slight): 1
- Medium (Moderate): 2
- High (Substantial): 3

7. DEFINING COURSE OUTCOMES AS PER BLOOM'S TAXONOMY AND MAPPING WITH POs/PSOs

Course outcomes are the measurable statements defined for each course. These statements articulate to students, faculty, and other stakeholders what students will achieve in each course and how their learning will be measured and to which level of Bloom's Taxonomy. This section includes course outcomes and respective course articulation matrix for each course of the programme. This matrix describes the mapping of CO with POs & PSOs for the course being delivered and is done by the programme coordinator. The correlation strength (1,2,3) of each is defined with respect to PO/PSO it is mapped with. Followed by this, a program articulation matrix shall be prepared for all the courses in a program.

Course Title:.....

Course

Code:.....

Course Outcomes: The Students will be able to:

CHH-508B.1 Analyses.....

CHH-508B.2 Evaluate.....

CHH-508B.3 Synthesis.....

CHH-508B.4 Develop

Course Articulation Matrix

CO Statement (CHH-508B)	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P O 12	P S O 1	P S O 2
CHH-508B.1	3	2	-	1	-	-	-	-	-	2	3	-	2	-
CHH-508B.2	-	3	2	-	-	1	-	-	3	-	-	2	-	2
CHH-508B.3	2	-	3	2	-	-	-	3	-	2	-	1	-	1
CHH-508B.4	1	2	-	3	-	-	2	-	-	1	2	-	3	-



-Low (Slight): 1

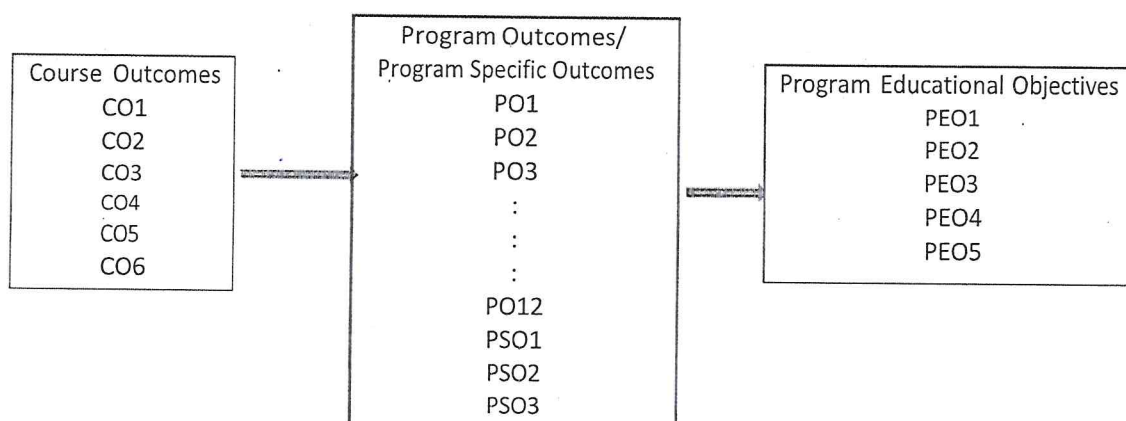
-High (Substantial): 3

8. CREATION OF PROGRAM ARTICULATION MATRIX

[illegible]

The Program outcomes shall be computed and assessed at three different levels. First level is course level, at the completion of each course, Course outcomes assessment and attainment analysis is done by the course coordinator. Second level includes the Program Outcome/Program Specific outcome assessment and attainment that is done at the completion of degree Programme. This is followed by the computation of assessment and attainment of Program Educational Objectives (PEOs). This indicates the ability of graduated students to utilize their acquired skillset while performing at different levels during his/her early professional career of 3 to 5 years.





Course outcomes assessment and attainment analysis is done at the completion of each course

Program Outcome/Program Specific outcome assessment and attainment is done at the completion of degree Programme

Program Educational objectives assessment and attainment is done within 3-5 years of graduation

Fig 1 Levels of Outcome attainment

Program Educational Objectives (PEOs) are the comprehensive statements describing the intending career and professional accomplishments for the student. These statements are formulated keeping in view the interests of all the stakeholders.

- Program Outcomes and Program specific Outcomes (POs and PSOs) are then devised which describe what students are expected to know or will be able to do when they graduate from a program.

-Mapping of Program Education Objectives (PEOs) with Program Outcomes and Program specific Outcomes (POs& PSOs) is done in the curriculum structure.



10. FACULTY INVOLVEMENT

The course coordinators in consultation with all the faculty members delivering the same course would frame measurable CO statements, complete CO-PO mapping and compute CO attainments for subsequent analysis at course level. They would submit CO attainment and subsequent action recommendations to the Year wise coordinators /Program coordinators. They will consolidate the year wise CO attainment along with recommended actions. The department academic committee under the guidance of Head of Department would consolidate CO-PO attainment and later PEO attainment, plan overall action recommendations and share with Board of studies for their suggestions and action to be taken.

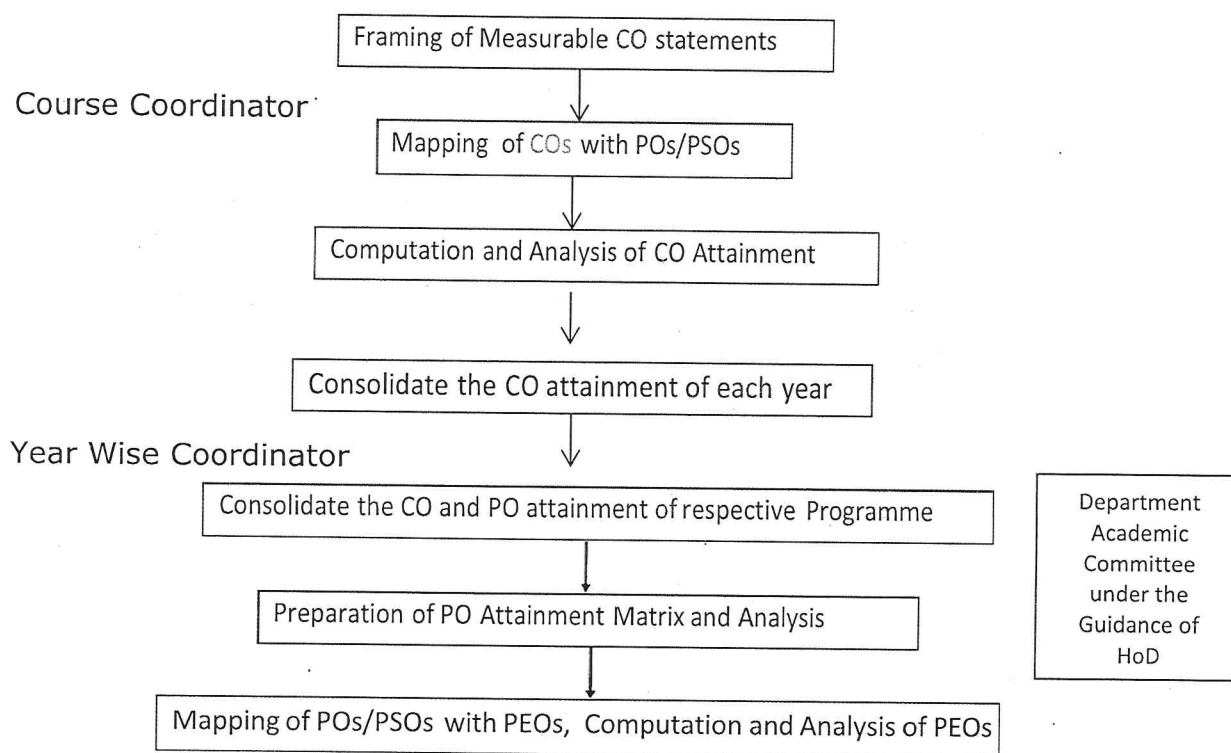


Fig 2 Faculty involvement at different levels



11. ASSESSMENT TOOLS AND PROCESS FOR COURSE OUTCOME ATTAINMENT

11.1 Assessment Tools for CO Attainment:

Direct and indirect both assessment tools shall be used for data collation. The weightage for direct and indirect methods fixed will 80% and 20%, respectively. Direct tools shall include cumulative continuous internal assessment methods (Assignments, Sessionals /mid-term, Seminars, Quizzes, case studies, Presentations etc.) and end semester examinations. Indirect tools will include course exit survey. The process to be followed for course outcome attainment is depicted in Fig 3

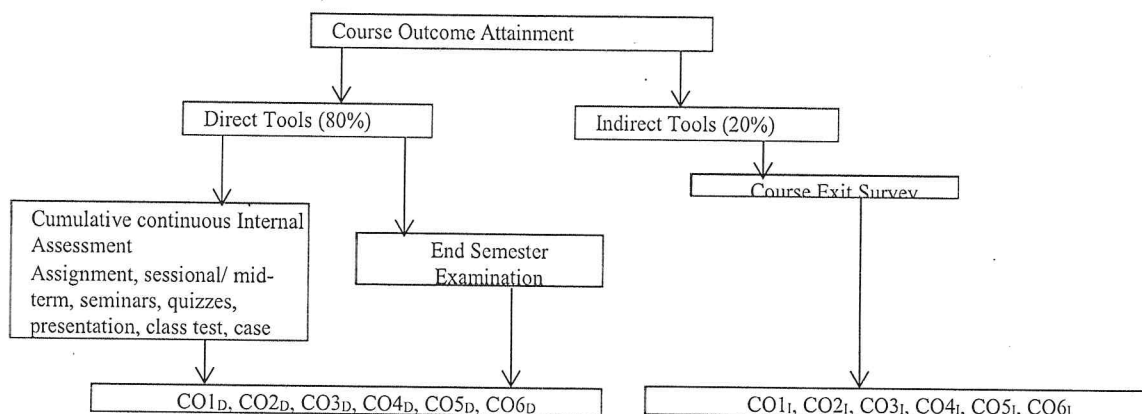


Fig 3 Assessment tools for Attainment of Course Outcomes

Different assessment tools help in evaluating student learning and attainment of course outcomes. Credit based continuous evaluation system shall be followed at the university. Evaluation of each course would be done by the respective course teacher throughout the semester. Each theory and practical course have internal as well as external assessment covering following parameters:

- Teacher's assessment: This includes assignments, tutorials, quiz, viva voce and lab report for practical courses etc.
- Sessional tests.
- End semester examination
- Technical Seminars, Colloquium and Projects
- Industrial Training: Assessment of training primarily includes feedback from the industry mentor, in-house faculty mentor and presentations at different stages to assess the performance.



- Course Rubrics: These course specific evaluation charts shall be prepared by course coordinators to assess student's performance consistently for COs and subsequent PO attainment analysis for lab courses, projects, colloquium, industrial training etc.

11.2 Process to Measure CO Attainment:

- In theory exam each question shall be mapped with each course outcome and its Bloom's Taxonomy level must be specified for all internal sessional exam / mid-term and end semester examination.
- Problems and questions for Assignment/tutorial shall be mapped to respective course outcomes.
- Question wise marks shall be recorded for internal sessional exam / mid-term, assignment/tutorials and end semester examinations from evaluated answer sheets.
- A course wise database shall be prepared to map marks obtained in each question attempted corresponding to a particular CO.
- For Lab courses/projects/colloquium/industrial internship, experiments etc. the respective modules shall be mapped to designed course outcomes. Rubrics shall also be used for these courses.
- For direct attainment, all the questions will be clubbed CO wise, threshold (say of 60%) can be set initially for each question and the number of students scoring more than threshold in respective questions shall be counted and divided by total number of students to compute the direct CO attainment in particular question. This will be followed by the computation of Average CO.
- This will provide the direct attainment of Course outcomes.
- For computation of indirect CO attainment, students shall submit the course exit survey at the end of each course. The weighted average shall be computed to get the indirect CO attainment.
- The weighted sum of direct and indirect attainment ($0.8 \times \text{Direct CO attainment} + 0.2 \times \text{Indirect CO attainment}$) will provide the overall CO attainment.
- Course outcome attainment target will be set on the basis of average performance levels in that course during previous three years. a) Compute the average marks scored in each course during the last three years. b)



Compute the percentage of students scoring above the calculated average marks. c) Department may add 5% to set the improved target.

Target setting Parameters	Target %age from previous 3 years results	0.8* Direct + 0.2* Indirect
Set Target Direct		
Set Target Indirect		
Weightage		
Overall Set Target		

Add 5% to consider continuous Improvement

- Overall CO attainment shall be analyzed (attainment is achieved/not achieved) by comparing attained CO with the target set for each course.

Course Outcome	Direct Attainment %age	0.8* Direct Attainment %age	In direct Attainment %age	0.2* In direct Attainment %age	Overall CO Attainment
CO1					
CO2					
CO3					
CO4					
CO5					
CO6					

≥ Set Target:
Attainment is achieved
< Set Target:
Attainment is not achieved

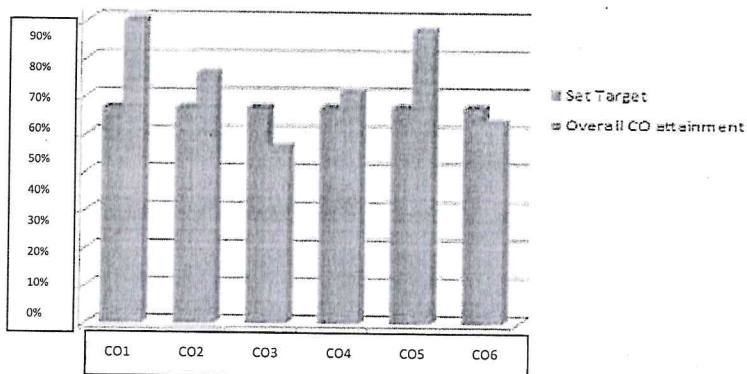
be mapped to levels (1, 2, 3) of attainment. A middle level (level 2) can be assigned to a range of set target + 5% of CO attainment. Considering the trends results/Course outcome, the lower level (level 1) can be set for %age of CO attainment which is less than set target %age. The higher level (level 3) can be set for % age of CO attainment which is greater than set target % age +5%.

Course Outcome	Direct Attainment %age	0.8* Direct Attainment %age	In direct Attainment %age	0.2* In direct Attainment %age	Overall CO Attainment	Level of Attainment (example)
CO1						3
CO2						2
CO3						1

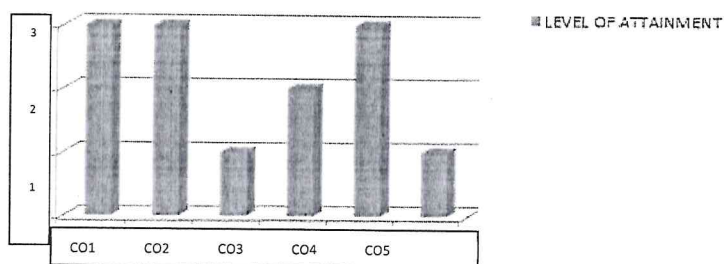


CO4						2
CO5						3
CO6						2
Average CO Attainment						2.16

- The bar graphs shall be plotted to analyze the CO attainment and planning of subsequent actions.



Percentage CO Attainment



Level of CO Attainment

Manav Rachna University (established under Haryana State Private University act 2006) Sector-43, Delhi-Surajkund Road, Faridabad. Course Exit Survey						
1. Name:			2. Roll No.:			
3. Program:			4. Batch:			
5. Semester:			6. CGPA till present semester:			
7. Course Title:			8. Course Code:			
9. Name of Course Teacher:						
Rate your understanding of each course outcome on the scale of 5 to 1 5- completely satisfied, 4 — very satisfied, 3- moderately satisfied, 2- slightly satisfied and 1 - not at all satisfied						
Course Outcome	Please grade the attainment of following course outcomes	RATING				
		5	4	3	2	1
CO1	Rate your understanding to C01 statement					
CO2	Rate your understanding toCO2 statement					
CO3	Rate your understanding toC03 statement					
CO4	Rate your understanding to.....CO4 Statement					
CO5	Rate your understanding to C05 statement					
CO6	Rate your understanding to C06 statement					
Suggestions for improvement: Signatures:						
Date:						



Consolidated Course Exit Survey and Analysis

Total no. of students, N:

Course Title & Course

Code: Semester:

Even/odd Academic Year:

Course Outcome	No. of students rated '5'	% age of students	No. of students rated '4'	% age of students	No. of students rated '3'	% age of students	No. of students rated '2'	% age of students	No. of students rated '1'	% age of students	Avg % age
CO1	A5	A5/N	A4	A4/N	A3	A3/N	A2	A2/N	A1	A1/N	
CO2											
CO3											
CO4											
CO5											
CO6											

Weighted average, $WA = (5 \times A5 + 4 \times A4 + 3 \times A3$

$+ 2 \times A2 + 1 \times A1) / 5$ Avg %age- $(WA/N) \times 100$

The weighted sum of direct and indirect attainment ($0.8 \times$ Direct CO attainment $+ 0.2 \times$ Indirect CO attainment) will provide the overall CO attainment.

For Lab courses/projects/coIIoquium /industrial internship, experiments and respective modules shall be mapped to designed course outcomes and Rubrics shall also be used for analysis.



Sample Course Rubrics

Name of the
student: Course:
Semester:

Score = 1 or 2: Action initiated
by instructor

Score = 3 or 4: Action initiated
by instructor

Performance Indicator	Course Outcomes	Unsatisfactory 1	Developing 2	Satisfactory 3	Exemplary 4	Score	Action Initiated
Able to demonstrate....							
Able to relate.....							
Able to develop.....							
Able to Illustrate.....							
Able to analyze.....							
Able to implement....							
Average Score						2.3	
Number of students registered in course- (Course Code:)			Percentage of students with score *2 In course (Course Code)				



12. TOOLS AND PROCESS FOR POs/PSOs ATTAINMENT AND ANALYSIS

12.1 Tools for PO/PSO Attainment:

Direct and indirect both assessment tools shall be used for data collation. The weightage for direct and indirect methods fixed will 80% and 20%, respectively. Direct tools shall include course outcome attainment levels. Indirect tools will include 50% weightage for program exit survey and 50% weightage for alumni. The process to be followed for course outcome attainment is depicted in Fig 4.

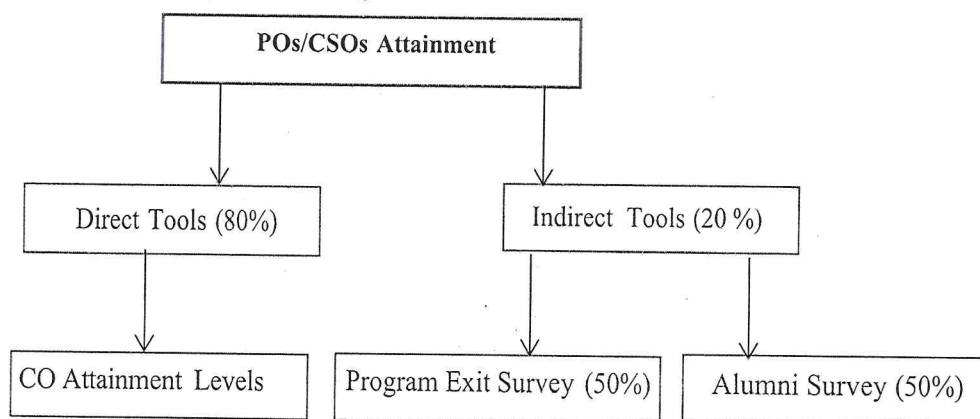


Fig 4 Assessment Tools for Attainment of POs/PSOs

Program exit survey shall be conducted after the completion of respective programme, which helps in providing the valuable inputs to assess what should be improved, modified or remain intact. The University has Manav Rachna Alumni Association, most of the alumnus are entrepreneur or working at very high positions in the industry. The university has also launched an app "Manav Rachna Alumni Connect" to interconnect the alumni. The alumni help the students in training and placement; have also been called for the Expert lecture to deliver the new technologies. Their feedback is also considered for imparting the advice related to the course revision, introduction of new electives, establishment of new labs, conducting workshops etc.



12.2 Process of PO/PSO Attainment:

- The average attainment of POs (PO1, PO2, . . ., PO..) and respective PSOs (PSO1, PSO2, PSO3....) through direct assessment tools shall be calculated using the following steps:
 - Course Correlation/Affinity factor in Program articulation matrix will be converted into respective levels as follows:
 - Correlation/Affinity factor '3' shall be mapped to level '1'
 - Correlation/Affinity factor '2' shall be mapped to level '0.66'
 - Correlation/Affinity factor '1' shall be mapped to level '0.33'
 - Average Course attainment level of each course shall be recorded
 - The course wise attainment of POs (PO1, PO2,,) and respective PSOs (PSO1, PSO2, PSO3....) through direct assessment tools shall be calculated using the following formula:

**PO_j, or PSO_k attainment of course C_i,
= Course attainment level of CO_i for C_i
= Correlation level of CO_i for C_i**

Where PO_j : represents POs with j= 1 to total number of POs.

PSO_k: represents PSOs with k=1 to 3 or 4 as per number of PSOs designed for Programme.

C_i: represents course 1, 2,3,...,n

CO_i: represents course outcome 1,2,.

12.1.1 The overall attainment level of twelve POs (PO1, PO2,) and respective PSOs (PSO1, PSO2, PSO3.....) through direct assessment tools has been calculated using the following formula:

$$\text{PO}_j \text{ or PSO}_k \text{ attainment} = \frac{\sum_{i=1}^n \text{PO}_j \text{ or PSO}_k \text{ attainment of course C}_i}{\text{Number of Mapped Courses with respective PO}_j \text{ or PSO}_k}$$

The average attainment of POs (PO1, PO2, ..,) and respective PSOs (PSO1, PSO2, PSO3.) through indirect assessment tools is calculated using the following steps:

- 12.1.2** The parameters of Program exit survey and Alumni survey shall be mapped to respective POs/PSOs.
- For the computation of indirect PO/PSO attainment, students shall be asked to fill the Program exit survey (Table 2) after the programme and alumni survey (Table 3) by alumni members, the weighted average shall be computed for all the parameters.
 - The weighted average of direct (80%) and indirect (20%) PO/PSO attainment shall be computed to know about overall PO/PSO attainment.



1. For direct computation of PO/PSO attainment, Program articulation matrix describing CO-PO/PSO mapping for all the courses is given below:

[illegible]

- Correlation/Affinity factor '3' shall be mapped to level '1' Correlation/Affinity factor '2' shall be mapped to level '0.66'

[illegible]

3. The average level of CO attainment for each course will be recorded as follows:

Course Code	Course Title	Average Level of CO Attainment
CHH-101T		2.16

4. The course wise attainment of twelve POs (PO1, PO2, PO12) and respective PSOs (PSO1, PSO2, PSO3....) through direct assessment tools shall be calculated using the following formula:

PO_j or PSO_k attainment of course C_i
= Average Course Attainment level for C_i
= Average correlation level for C_i

Where PO_j: represents twelve POs with j=1 to 12.

PSO_k represents four PSOs with k=1 to 3 or 4 as per number of PSOs designed for Programme.

C_i: represents course 1, 2,3....n



- The overall attainment level of twelve POs (PO1, PO2, ..., PO12) and respective PSOs (PSO1, PSO2, PSO3.....) through direct assessment tools shall be calculated using the following formula:

$$\text{PO}_j \text{ or PSO}_k \text{ attainment} = \frac{\sum_{i=1}^n \text{PO}_j \text{ or PSO}_k \text{ attainment of course } C_i}{\text{Number of Mapped Courses with respective PO}_j \text{ or PSO}_k}$$

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO B	PO 9	PO 10	PO 11	PO 12	PS O 1	PSO 2	PS O 3
CHH-101T	1* 2. 16	.66 *2. 16	.6 6* 2. 16	.3 3* 2. 16	-	.6 6* 2. 16	-	-	-	1*2 .16	-	.6 6* 2. 16	-	.33 *2. 16	-
Average Direct PO/PSO Attainment (A)	D1	D2	D3	D4	DS	D6	D7	DB	D9	D1 O	D1 1	D1 2	D-PS O1	D-PSO 2	D-PS O 3

- For Indirect PO/PSO Attainment, the parameters of Program exit survey and alumni survey shall be mapped to respective POs/PSOs,



MANAV RACHNA UNIVERSITY
Programme Exit Feedback

Section A:
General Information:

Name of Student: _____ Roll No.- _____
Department & Faculty: _____ Year of Graduation: _____

Programme _____

Please mention your current status:

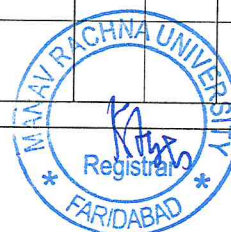
- a. Placed from Campus _____
- b. Details of the Company & Package, if placed _____
- c. Going for higher studies _____
- d. Programme enrolled for & University, if going for higher studies: _____
- e. Planning your own startup/ Joining Family Business: _____
- f. Details, if answer to above is yes: _____
- g. Others (Specify) _____

Email ID: _____ Mobile No.: _____

Section B
Evaluation of Programme Effectiveness:

Please identify the degree to which you believe your undergraduate education helped you to develop the skills and abilities in the following areas to be successful in your professional life:

Sr No	Parameters	Strongly Disagree 1	2	3	4	Strong ly Agree 5
1	Understanding the importance of interdisciplinary subjects and its application in learning other engineering subjects (PO1)					
2.	Comprehension of the basic knowledge of analysis and design (PO2)					
3	Ability to apply research-based approach using innovative tools and techniques in various fields (PO3)					
4	Ability to apply the knowledge and understanding of the engineering and management principles while working individually and as part of team handling multidisciplinary projects. (PO4)					
5	Ability to communicate effectively in both verbal and written form and develop intrapersonal and interpersonal skills					
6	Ability to develop competencies through self-education for lifelong learning					



7	Ability to secure employment or be an entrepreneur with the application of professional knowledge with ethical responsibility					
8	PSO1					
9	PSO2					
10						
11						

Section C
Additional Information:

1. Do you feel your programme prepared you for your initial job and/ or higher studies?

Yes ☐

No ☐

Somewhat ☐

2. Are there any other skills or knowledge you would like to have in the programme being offered to current students to ensure their preparedness for employment and/ or higher studies? If YES, please specify

3. During the programme, how many courses or training programs have you taken outside the degree programme?

None ☐

1 - 3 ☐

4 - 6 ☐

More than 6 ☐

4. During the programme, how many conferences, workshops, professional meetings, etc. have you attended?

None ☐

1 - 3 ☐

4 - 6 ☐

More than 6 ☐

5. During the programme, how many sports and cultural activities have you participated?

None ☐

1 - 3 ☐

4 - 6 ☐

More than 6 ☐

6. Specify details regarding your achievements in curricular/ non - curricular activities:

Section C



Additional Information:

Rating Scale: (Low-1 High-4) 1 – Not up to the mark, 2 – Moderate, 3 – Good, 4 – Very Good, 5-Excellent

- | | |
|-------------------------------------|--------------------------|
| 1. Head of the Department | <input type="checkbox"/> |
| 2. Teaching Faculty/ Staff | <input type="checkbox"/> |
| 3. Infrastructure | <input type="checkbox"/> |
| 4. Library | <input type="checkbox"/> |
| 5. Laboratories | <input type="checkbox"/> |
| 6. Exam Cell | <input type="checkbox"/> |
| 7. Administration | <input type="checkbox"/> |
| 8. Training & Placement Office | <input type="checkbox"/> |
| 9. Career Development Centre (CDC) | <input type="checkbox"/> |
| 10. Corporate Resource Centre (CRC) | <input type="checkbox"/> |
| 11. Discipline | <input type="checkbox"/> |
| 12. Environment | <input type="checkbox"/> |
| 13. Canteen | <input type="checkbox"/> |
| 14. Sports Facilities | <input type="checkbox"/> |
- B. Your suggestion (s) for improvement

Signature of Student (Optional)

Date:



Consolidated Program exit Survey

Total no. of respondents, N:

Programme:

Academic Year:

Parameter	No. of students rated '5'	%age of students	No. of students rated '4'	%age of students	No. of students rated '3'	%age of students	No. of students rated '2'	%age of students	No. of students rated '1'	%age of students	Weighted Avg %age
Understanding the importance of interdisciplinary subjects and its application in learning other engineering subjects	A5	A5/N	A4	A4/N	A3	A3/N	A2	A2/N	A1	A1/N	
Comprehension of the basic knowledge of analysis and design											
Ability to apply research-based approach using innovative tools and techniques in various fields											
Ability to apply the knowledge and understanding of the engineering and management principles while working individually and as part of team handling multidisciplinary projects.											



Parameter	No. of student s rated '5'	%age of stud en ts	No. of stud en ts rated '4'	%age of stud en ts	No. of stud en ts rated '3'	%age of stud en ts	No. of stud en ts rated '2'	%age of stud en ts	No. of stud en ts rated '1'	%age of stud en ts	Weighted Avg %age
Ability to communicate effectively in both verbal and written form and develop intrapersonal and interpersonal skills											
Ability to develop competencies through self-education for lifelong learning											
Ability to secure employment or be an entrepreneur with the application of professional knowledge with ethical responsibility											
PO8											
PO9											
PO10											
PO11											
PO12											
PSO1											
PSO2											
PSO3											

Weighted average, WA(Proq exit) = $(5*A5 + 4*A4 + 3*A3 + 2*A2 + 1*A)/5$
 Avg %age= $[WA (Proq exit)/N]*100$



Manav Rachna University, Faridabad

Alumni Feedback

1. Name & Address

2. Programme studied at MRU _____ Year of Passing _____

3. Status after passing out from MRU

i) What was your primary activity?(Please put a tick ☒ mark in the appropriate box)

- a. Employed for salary ☐ b. Seeking employment ☐
c. Undergoing higher studies ☐ d. Self employment ☐

4. a. Details of your present primary activity Organization at present you are employed:

Position:

Business email id:

Since when:

Additional degree undergoing / obtained:

Year:

Institution:

5. How satisfied are you with the primary activity? ☒

- a. Extremely satisfied ☐ b. Very satisfied ☐
c. Somewhat satisfied ☐ d. Not at all satisfied ☐

6. Using the following scale, rate the helpfulness of following items in acquiring the skills and knowledge needed to perform your present job (Please put a ☐ mark).

Description	Extremely helpful (5)	Very helpful (4)	Moderately helpful (3)	Not at all helpful (2)
Courses in major field				
Elective courses				
Project/ research				
Extra-curricular activities				
Formal training in a present job				

Any changes would you like to suggest to improve the curriculum / course?

.....
.....
.....



2. For each of the items below, rate your undergraduate major program (Please put a ✓ mark).

Description	Extremely satisfied (5)	Very satisfied (4)	Moderately satisfied (3)	Not at all satisfied (2)
Relevance of the curriculum to job & Future aspirations				
Inspiration and encouragement				
Interaction with faculty				
Quality of instruction				

3. For each programme educational objective mentioned below, circle a number on the scale provided to rate your satisfaction with the academic preparation you received in that area as a student (Please put a ✓ mark).

S.No	Programme Educational Objectives	QUESTIONARIES	Excellent(5)	Very good(4)	Good(3)	Satisfactory (2)	Poor(1)
I.	Employability	How comfortable you were in the training/initial period in your first employment					
		Professionally competent for the requirements of Organization					
		Excel in analytical and problem solving skills in multidisciplinary environment					
		Ability to exhibit and communicate knowledge of basic engineering sciences.					
II	Higher Studies	Ability to learn new technology					
		Willingness in lifelong learning for professional development					
		Willingness in higher education					
III.	Entrepreneurship	You work for business incubation/ Research and Development at your company					
		You plan to start a new company					
		You exhibit good leadership qualities					
IV.	Responsible Citizen	Development of Ethical Attitude					
		Ability to work in team					
		Disseminate universal science and technology for the society					

How well is the institute keeping in touch with you since graduation? (Please put a ☐ in the appropriate box).

a. Extremely Well

b. Very Well

☐

c. Somewhat Well

☐

d. Not at all Well

☐

Date :

Place:

Signature of Alumni



Consolidated Alumni Survey

Total no. of respondents, N:

Programme:

Academic Year:

Parameter	No. of students rated '5'	%age of students	No. of students rated '4'	%age of students	No. of students rated '3'	%age of students	No. of students rated '2'	%age of students	No. of student rate 4 '1'	%age of students	Weighted Avg %age
How comfortable you were in the training/initial period in your first employment	A5	A5/N	A4	A4/N	A3	A3/N	A2	A2/N	A1	A1/N	
Professionally competent for the requirements of Organization											
Excel in analytical and problem solving skills in multidisciplinary environment											
Ability to exhibit and communicate knowledge of basic engineering sciences.											
Ability to learn new technology											
Willingness in lifelong learning for professional development											
Willingness in higher education											
You work for business incubation/ Research and											



Development at your company	No. of students rated '5'	%age of students	No. of students rated '4'	%age of students	No. of students rated '3'	%age of students	No. of students rated '2'	%age of students	No. of students rated '1'	%age of students	Weighted Avg %age
Parameter	A5	A5/N	A4	A4/N	A3	A3/N	A2	A2/N	A1	A1/N	
You plan to start a new company											
You exhibit good leadership qualities											
Development of Ethical Attitude											
Ability to work in team											
Disseminate universal science and technology for the society											

Weighted average, \ A (Alumni)}=(5*A5 +4*A4-+ 3*A3 +2*A2+1*A)/5

Avg %age= (WA(Alumni)/N]* 100



Parameter	PO1	PO2	PO3	PO4	PO5	PO6	PO12	PSO1	PSO2	PSO3
How comfortable you were in the training/initial period in your first employment											
Professionally competent for the requirements of Organization											
Excel in analytical and problem solving skills in multidisciplinary environment											
Ability to exhibit and communicate knowledge of basic engineering sciences.											
Ability to learn new technology											
Willingness in lifelong learning for professional development											
Willingness in higher education											
You work for business incubation/ Research and Development at your company											
You plan to start a new company											
You exhibit good leadership qualities											
Development of Ethical Attitude											
Ability to work in team											
Disseminate universal science and technology for the society											

The weighted average percentage will provide the indirect PO attainment.

In this way the Average indirect PO/PSO attainment using both Program exit (PI- P: Program exit, I-Indirect) and Alumni survey (AI- A: Alumni survey, I-Indirect) will be computed. The overall weighted PO/CEO attainment using Program exit and Alumni survey would be computed as: Overall weighted PO/PSO attainment using Indirect tools = $0.5 \times PI + 0.5 \times AI$



Average PO/PSO Attainment using Program Exit Sukey (P)															
Average PO/PSO Attainment using Alumni Survey (AI)															
Overall indirect PO/PSO Attainment , $B = 0.5*PI + 0.5*AI$	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	IPS O1	IPSO 2	IPSO 3

The weighted average of direct (80%) and indirect (20%) PO/PSO attainment shall be computed to know about overall PO/PSO attainment.

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11		PS 01	PSO 2	PSO 3
Average Direct PO/PSO Attainment (A)	DI	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D - P S O 1	D-PS O 2	D-PS O 3
Average indirect PO/PSO Attainment (B)	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	IPS O1	IPSO 2	IPSO 3
Overall PO/PSO Attainment— $A*0.8 + B*0.2$	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	O11	O12	O - P S O 1	O-PS O 2	O-PS O 3

The bar graphs shall be plotted to show PO/PSO attainment and subsequent analysis. The POs/PSOs attainment levels shall be analyzed to plan the subsequent actions.



13. TOOLS AND PROCESS FOR PEOs ATTAINMENT AND ANALYSIS

The assessment and attainment of PEOs shall include both direct and indirect tools as follows:

1. Direct Tools (Weightage: 60%):
 - a. Program Outcome/Program Specific Outcome attainment level as calculated in the previous section for the mapped PEOs. Weightage: 80%
 2. Indirect Tools (Weightage: 40%):
 - a. Program exit survey. Weightage: 10%
 - b. Alumni survey. weightage: 10%
 - c. Employer feedback. Weightage: 20%
- For direct attainment, the Program Outcome/Program Specific Outcome attainment level as calculated in the previous section shall be used directly for the mapped PEOs.
 - For Indirect attainment, the weighted average will collectively provide the Indirect PEO attainment.
 - The weighted average of direct (60%) and indirect (40%) attainment shall be computed to know about overall PEO attainment.

The PEO attainment matrix shall be formulated and respective PEO attainment shall be analyzed for subsequent actions.

Levels of attainment for PEOs

PEO Attainment	Level of Attainment
Greater than equal to 70%	Excellent
Greater than equal to 60% and less than 70%	Very Good
Greater than equal to 50% and less than 60%	Good
Greater than equal to 40% and less than 50%	Satisfactory
Less than 40%	Not Satisfactory



PEO Attainment Matrix:

PO/PSOs \ PEOs	PEO1	PEO2	PEO3	PEO4	PEO5
PO 1					
PO 2					
PO 3					
PO 4					
PO 5					
PO 6					
PO 7					
PO 8					
PO 9					
PO 10					
PO11					
PO12					
PSO 1					
PSO2					
PSO3					
Average PEO attainment					
Level of PEO Attainment					
Whether the expected level of PEO is attained or not? (Yes/No)					

The PEO attainment levels shall be analyzed to plan the subsequent actions.



Course Outcome Attainment Report (Session-.....)

Data:

To

The Member Secretary,
Department Academic Committee (DAC)
Department of.....

Subject: Submission of Course Outcome Attainment Report of the course.....
The course outcome attainment report for the course '.....' is
being submitted for the perusal and review of Department Academic Committee
members

Course Title with Code	CO	CO Statement	Attainment Percentage			Target Achieved/ Not Achieved	Action planned to improve the CO Attainment
			Direct Attainment	Indirect Attainment	Overall Attainment		
	CO1						
	CO2						
	CO3						
	CO4						
	CO5						
	CO6						

Graphical Analysis as downloaded from EMS

Course Coordinator



Academic Year:..... (odd/even semester)
 Institute/Branch: MRU-Faculty of
 Program:

Consolidated CO-Direct Indirect Attainment Report (As downloaded from EMS)									
S. No.	Class/Semester	Course Title	Course Code	Lecture type	Course Teacher	CO	Direct Attainment	Indirect Attainment	Overall Attainment
1	B.Tech. CSE Sem 1					CO1			
						CO2			



S. No.	Class/Semester	Consolidated CO-Direct Indirect Attainment Report (As downloaded from EMS)							
		Course Title	Course Code	Lecture type	Course Teacher	CO	Direct Attainment	Indirect Attainment	Overall Attainment
2						CO1			
						CO2			

EMS Coordinator
Department of.....



Academic Year:.....{odd/even semester}

Institute/Branch: MRU-Faculty of
Program:

S. No.	Class/ Sem	CO PO Direct Indirect Attainment						Target Achieved / Not Achieved	Action Planned	Recommendations of DAC
		Course Title	Course Code	Lecture Type	Course Teacher	CO	Direct Attainment	Indirect Attainment	Overall Attainment	
1						CO1				
						CO2				



This is a published document approved by **4th Academic Council Meeting held on 12th April, 2017. It contains 82 pages and is attested.**

