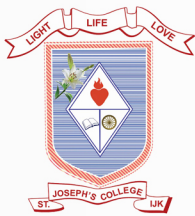




OBE

Outcome Based Education Manual



**St. Joseph's College (Autonomous)
Irinjalakuda**

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Outcome Based Education Manual

St. Josephs College (Autonomous), Irinjalakuda

1. Introduction

The education of the young generation has come to a point where having a directional goal-oriented approach to learning has become an inevitable need for sustaining the high competition in academics and the employment field. The transformation of the educational scenario as outcome oriented has indeed defined certain possibilities of learners being able to freely and flexibly choose the desired routes of learning for complete emotional and cognitive preparation. This is beneficial to reduce learning stress among the students by delivering and maintaining a focussed learning attitude among them. Having a strong technological base can further support and impart confidence to the aspirants for the attainment of their objectives. Thereby making the learner prepared to face the challenges that they meet enroute to success.

1.1 Outcome Based Education

Outcome Based Education is a model that focuses on the idea of what is expected of a student as he/she graduates from an institution. This model takes into consideration the desires of a learner and combines it with the expectation of the employment sector to produce results that are beneficial to both the parties. OBE is a system of education giving priority to ends, purpose, accomplishments and results. Technically, OBE integrates Psychological, Philosophical, Sociological and Technological principles and practices into education. It is structured in such a way that it keeps the scholars actively involved in productive activities and affirms the students' progress at each stage with appropriate indicators. OBE enhances the higher educational platform to a place of intellectual adventures and makes the scholars socially productive and accountable. It also prepares the students with the appropriate knowledge, skills and attitudes to fit into any career or profession the programme envisages. Adopting OBE into the curriculum helps in developing a clear set of outcomes around which all system's components can be focused. It also aids in establishing conditions and opportunities within the system that enable and encourage all students to achieve those essential outcomes. It creates a clear picture of what is important for students to be able to do, then organizing curriculum, instruction, and assessment to make sure this learning ultimately happens. All decisions about the curriculum, assessment and instruction are driven by the exit learning outcomes that the students should display at the end of a program or a course. It is the results-oriented thinking and is the opposite of input-based education, where the emphasis is on the educational process. Considering the emerging trends of employability that demands high scale of skills, knowledge and competencies, an outcome based curricular framework can guarantee that our students get the potential to transform into highly skilled professionals.

1.2 Benefits of OBE

Numerous benefits of OBE highlight its prominence in curriculum and academic lives of the students. Its flexibility feature provides a clear sense of what needs to be accomplished enabling the instructors with situational freedom and flexibility to structure their lessons based on student need and change to alternatives as required. Additionally, makes the students as well

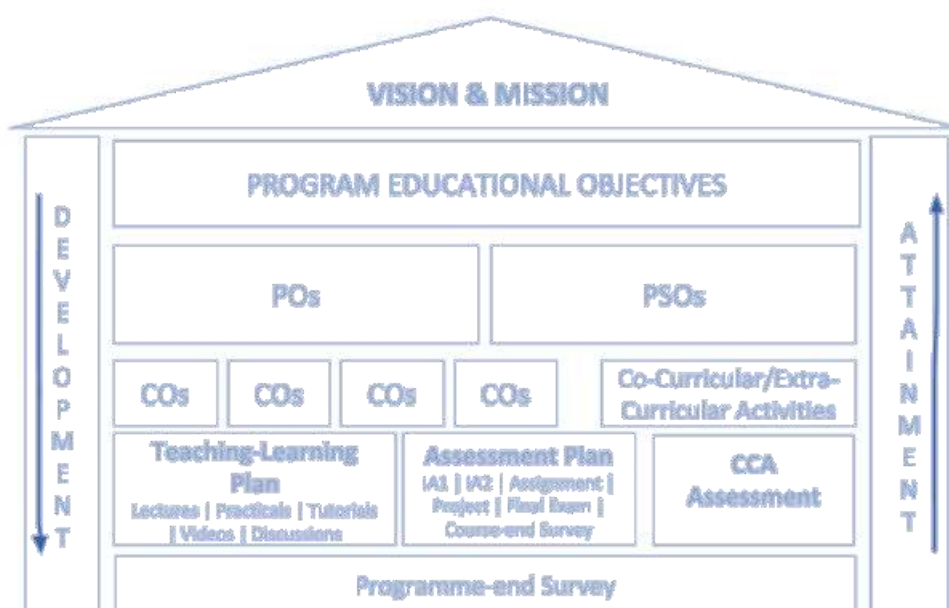
as the instructors prepared for the academic journey undertaken. The results obtained through this method have the advantage of comparison across individuals, classes, batches and even institutions making analysis of progress evident and comprehensible. OBE provides space for peer evaluation, self-evaluation and evaluation from the part of employers regarding the performance of the students. Hence, evaluation is more realistic.

OBE provides an authentic quantified profile of the student's competencies in terms of POs and PSOs which will be highly useful for the students for getting a placement according to their competencies.

This pedagogical approach also ensures that there is maximum student participation as learning is a combination of understanding as well as doing. OBE will be helpful for validating the performance of the institution in terms of the Mission, Vision, PEOs, POs, PSOs and Cos. Above all, OBE is capable of drafting a clear picture of the expected results imparting a sense of clarity and direction for developing strategies for attainment of objectives.

1.3 OBE Architecture

The OBE Architecture is a top-level plan for the OBE implementation in the institution. The architecture should be simple enough to convey itself to the stakeholders and broad enough to allow the required academic autonomy to the faculty.



1.4 Process of OBE

The process of OBE implementation consists broadly of 3 phases - Identification of Outcomes, Designing the Curriculum and Teaching Learning activities as well as Design of Assessment Strategies



1.5 Implementation of OBE

There are different orderly steps for implementing the concept of OBE into the curriculum. Before commencement of any course program, the educational outcomes are to be clearly identified and unambiguously specified regarding the content, context and competence. Once the outcomes are decided, the benchmarks are to be set for each level of the program. Each benchmark is a skill that must be demonstrated by the student. Benchmarks should tackle and define specifically the goals of the curriculum and verify ways to assess whether students have reached these goals at that level of study. The contents and teaching strategies for OBE can be implemented as a 'Whole-class' models which aim to bring all learners in a classroom up to high levels of learning before proceeding further or by the 'Flexible' models which use flexible grouping, continuous progress, technological approaches and instructional management. Once this level is achieved, OBE assessments are to be evaluated and conducted that focuses on well-defined learning outcomes. In OBE standard-referenced assessment could be used which is similar to criterion - referenced assessment but with clearer description of expected performance and since OBE requires ongoing feedback between the student and the lecturer, continuous assessments and student portfolios would be of a great help in assessing OBE. The success of implementation of OBE in the curriculum depends on frequent monitoring and continuous evaluations of the performance of the system. Finally, incorporating feedbacks from the stakeholders are proven to enhance the process of outcome-based education.

1.6 Identification of Outcomes

The building block of OBE is outcomes at different levels of hierarchy. In the formulation of the OBE model, PO and PSO has to be formulated considering the nature of the programme and social significance. These outcomes are materialized and measured through various course-related and other co-curricular activities. Hence, appropriate course outcomes (COs) related to each course are formulated as per the nature of the content in the course. Outcome Based

approach has accepted Blooms Taxonomy for standardization of the verbs that indicate various levels of attainment in each outcome.

1.7 Designing the Curriculum for OBE

In designing the curriculum, learners should be placed in the first position in the curriculum design. Here, students are permitted to construct knowledge and skills on the lines of the outcomes. Hence, the curriculum formulation should adopt a design-down technique. The curricular activities should be selected in the light of “Traceback the strategy from the desired end result”.

The curriculum should also be in accordance with the principle of expanded opportunities so that the students should be able to adopt the strategies comfortable to their ways and style. OBE Curriculum places a high expectation on the learner, here curriculum should push the learners beyond the limit of his normal possibilities so that the learner is deeply involved with the issues of learning.

1.8 Design of Assessment Strategies

Since OBE attainments are mostly based on course-level assessments, extreme care should be applied while designing the assessment plans and tools. All the COs should be sufficiently assessed using the right mix of direct and indirect methods. Some of the key points to be noted in this regard are:

- Formative Assessment - Fix the learning indicators and point to outcomes
- Assessment Rubrics for Activities - Prepare qualitative statements and assess the strength of each rubric to outcomes
- Summative Assessment - Prepare the examination design incorporating the strength of COs, Bloom's Taxonomy, difficulty level and types of questions
- Development of Scoring Key and linking it with the attainment of Cos

At the end of the OBE process planning, each of the Courses shall have a CO-linked Course Plan.

2. OBE@ St. Josephs

Considering the emerging trends of employability that demands high scale of skills, knowledge and competencies, an outcome based curricular framework can guarantee that our students get the potential to transform into highly skilled professionals. The college identifies general program outcomes (PO's) of every stream irrespective of the specific courses offered in the program. This helps an aspirant to decide the desired academic journey to embark upon during the time of admission. A planned and structured learning program can arrange a smooth and convenient track of learning experience for our students. It additionally helps our teachers in systematically rendering target-oriented quality education. An efficiently organised package of academic and professional gratification is our promise of adopting OBE into the curriculum

2.1 Aims and Objectives:

St. Josephs College (Autonomous), Irinjalakuda is an academy that fosters the holistic growth of its students at all aspects. Nurturing the learner through its strong academical foundation of beneficial course programs is one of the basic means of imparting excellence through

education. The college is adamant in adopting innovative and essential educational strategies that complement the needs and requirements of the age. Outcome Based Education (OBE) is one of our trump cards at achieving our academic goals. It convenes our efforts towards obtaining not just our desired aims but also strives in providing a platform to pool innovative teaching strategies in attainment of the same. The college has the following aims in focus as it attempts to implement OBE at full swing in the institution:

- Understanding and catering to the unique academic and intellectual needs of the student thereby aiding in student upliftment.
- To revise and monitor the curriculum followed in the institution and constantly upgrade it to match the requirements of the age
- To promote a generation of youngsters that are capable and skilled to survive the waves of academic and professional competition.
- To achieve the mission and vision of the institution by fostering holistic growth of the students.
- To promote directional and student centric pedagogical approach in teaching-learning practices.

Aligning with these aims, the college wholeheartedly welcomes the prospects of implementing OBE into the curricular framework of the institution with the following objectives to be covered:

- Timely and accurate conduct of student evaluation
- Overall evaluation of complete batches
- Frequent and productive syllabus evaluations
- Analysing the attainment of the designed Course Outcome
- Analysing the attainment of Program Specific Outcomes
- Analysing the attainment of Program Outcomes

In order to understand the scope of success of implementation of OBE into the curricula, there should be clarity in understanding of how to employ OBE for the achievement of the vision and mission of the institution that are stated as follows:

Vision:

Women empowered and liberated through knowledge for a brave new world of ideal families.

Mission

Development of women in the globalised e-world through a value based holistic instruction across a wide range of disciplines and mainstreaming a gender perspective in the national development process.

Keeping in focus the vision and mission of the college, the students and teachers are thoroughly communicated the following meaning and importance of defining the CO, PO, and PSOs to through the academic calendar, website, printed syllabus, Academic Management System and through regular induction and orientation programs:

(a) **Programme Outcomes (POs)** or statements that describe what the students graduating from general programmes should be able to do, they are the Knowledge, Skills and Attitude

students should possess during graduation. The POs are important as a guideline when developing or revising the course outcomes. Knowing the POs helps the faculty in designing the appropriate delivery and assessment methods

(b) **Programme Specific Outcomes (PSOs)** are statements that describe what the graduates of a specific programme should be able to do. These are the components indicative of the graduate's potential to acquire competence to practice at the appropriate level. The audiences for this educational outcome statements are external constituents such as prospective students, alumni, employers, transfer institutions and student sponsors. While designing the curriculum in any discipline, inputs from various stakeholders through feedbacks and surveys are to be taken into account.

(c) **Course Outcomes (COs)** or statements that describe what the students should be able to do at the end of a course. They are the measurable parameters which evaluates each student's performance in blooms taxonomy levels for each course that the student undertakes in every semester.

According to the Blooms Taxonomy there are 6 levels of thinking order on which the students can be evaluated namely remembering, understanding, applying, analysing, evaluating and creating. These state the different cognitive levels that the students attain while resorting to OBE system of education. The other specific methods of assessment of the candidates during the program is left for the institution to decide like Mid -Semester and End Semester Examinations, Tutorials, Assignments, Project work, Labs, Presentations, Employer/Alumni Feedback etc. These course outcomes are mapped to Program Specific attributes and Program outcomes based on relevance helping the institution to measure the corresponding Program Outcome. The COs are mapped to at least one of the POs and PSOs. When designing the COs, faculty handling the course, map their COs to the appropriate PO and PSO, in order to ensure that all POs and PSOs are delivered throughout the period of study.

Apart from these basic strategies, the IQAC of the college organises workshops, seminars and informative training sessions for the faculty and students to acquaint them with the benefits of OBE curriculum. Further, the faculty are given ample training to understand the process of implementing OBE by formulating the PO, PSO and CO and extracting the best out of the process. Committee of experts constituted by the Academic council prepares the Programme Outcomes in after receiving the inputs from Stakeholders, Alumni, Employers, Accrediting Agencies, Industry and Affiliated university. The Course Outcomes and Programme Specific outcomes prepared by the faculty members in discussion with the external subject experts are finalised and approved by the Board of Studies. Mapping of COs to POs and PSOs are analysed and finalized by the respective department council and then the knowledge levels for each unit are identified and incorporated in the syllabus.

2.2 CO – PO mapping and CO – PSO mapping

The final assessment in an OBE approach is the estimation of the level of attainment of POs and PSOs. These outcomes are estimated from the estimates of all COs and Activity Outcomes AOs of the entire program. Hence every Course Outcomes (COs) and other Activity Outcomes (AOs) should be mapped onto the respective POs and PSOs in terms of the strength of mapping.

2.3 Undergraduate Program Outcomes

PO1- Subject Competence: With a specific degree at hand, a student is considered professionally qualified for a working environment. Keeping a criterion of subject competence as a program outcome can conceptualise efforts towards creating subject proficient individuals with the required set of skills for a competent high quality working environment. This program outcome will enable the students to comprehend the vastness of the desired subject and aim for a subject related field of work as a career prospect. Moreover, indulging in the crevices of the subject can provide a base of interest for research leading to higher studies and better futures.

PO2- Problem solving and critical thinking- Attaining subject knowledge is not sufficient to meet the growing demands of the working field. Along with the foundation of knowledge, a graduate student is expected to possess skills of problem solving and critical thinking that can raise the prospective of a bright career for an undergraduate student. This program outcome can ensure that the students receive ample opportunities to work on these skills by providing them with pragmatic modes of learning in their respective subjects. This focuses on methodologies of learning by doing and trial and error practices. With sufficient time and practise, students can master these mandatory work-related skills and aid in performing effortlessly well in their sought careers.

PO3- Self-directed and Life-long Learning: This program outcome aims at making the student independent in carrying out the academic responsibilities assigned to them during their tenure in the institution. This paves a way towards making them efficient in handling individual tasks assigned in their work spaces. Keeping a self-lit curiosity for learning also promotes life-long refining of individual routes of education thereby striving to keep oneself updated with the latest innovations and technological discoveries that make the journey towards success in the broadest context of socioecological change more fruitful.

PO4 - Research aptitude and analytical thinking: One of the skills that can be trained in the students is developing research aptitude and computational thinking. This helps in gaining a curious mind constantly in search of new ideas and analytical thinking that can effortlessly analyse the pros and cons of a situation and come to a conclusion immediately. Coming to a working condition, this program outcome shall aid the graduate in continuously re-evaluating the past methodologies to indulge in new and better routes towards the desired goal.

PO5- Ethics- With prominence given to results more than routes, the moral grounds are constantly being compromised by the working population. In view of this crisis, this program outcome helps in adhering to basic ethical values combined with strong subject awareness that promises in creating a complete package of genuine result guaranteeing individuals. This program outcome ensures that the student builds a healthy conscience in differentiating between the right and the wrong and also supports in analysing the appropriate thing to do in a particular situation.

PO6- Environment and Sustainability: An individual can be called educated when he/she recognises and shows respects to other forms of living things. Education is complete only when the individual begins to support other forms of life along with the sustenance of their life. This program outcome ensures that the students not only become conscious of environmental and societal responsibilities but also carry out their roles as responsible citizens of the world. This

PO helps in pin pointing to the delicate balance of nature and the emergency in preserving this balance for our own survival.

PO7- Effective communication and entrepreneurial skills: This program outcome aims at improving the LSRW and entrepreneurial skills of the student. Possessing language skills is a much valued criterion in work places and an entrepreneurial journey. Having subject knowledge is complemented with the adequate language efficiency as suggested creative ideas find better fulfilment with the proper instructions for its implementation. The students are to be rigorously trained for improving situational conversational skills and attaining knowledge of business related vocabulary to assist them in their entrepreneurial endeavours.

PO8- Global Perspective and social interaction: With the promise of holistic education, we strive to impart a broadminded perspective to the students. Considering the age group of the students who are prone to external factors, this program outcome ensures that the students attain an ability to acknowledge the diversity in ideas and extract the good in others. It also suggests in recognising instance of unhealthy influences around them and the relying on inspirations of growth and stability. Apart from their adhered curriculum, the students are trained to be flexible in their dealing as to learn and unlearn things as their situation demands and are deemed necessary for success through social interactions.

2.4 Post Graduate Programme Outcomes

PO1- Critical Thinking: This program outcome ensures that the student is able to take informed actions after identifying the assumptions that frame their thinking and actions. It helps in checking out the degree to which these assumptions are accurate and valid and aids in looking at the ideas and decisions (intellectual, organizational and personal) from different perspectives through multidisciplinary approach. The course programs support this aspect in students through student centric activities in the classrooms like seminars, projects, assignments and other group and individual academic works.

PO2- Subject competence and Problem Solving: Understanding the respective subject matter to become subject experts in the field and solve problems of relevance to society to meet the specified needs using the knowledge, skills and attitudes acquired from the program of study is the sole intention of this program outcome. It enables the student at viewing multiple perspectives to analyse any situation/task at hand and derive feasible solutions by optimistically approaching a problem. This inculcates independent research aptitudes and strong decision-making skills in the students along the tenure of the program.

PO3- Communicative efficiency social interaction: This PO intends in developing basic language requisites of speaking, reading, writing and listening clearly in person and through electronic media in English and one Indian language and make meaning of the world by connecting people, ideas, books, media and technology. Irrespective of the discipline, the curriculum insists on improving the communicative capabilities of the students through different curricular activities that demand conversational and demonstrative skills from the students. Opportunities for paper presentations, classroom discussions and debates, peer activities form a fertile base for the students to develop their communicative abilities. It is one of the most valued skills required in any entrepreneurial/employment sector as creative ideas require strong communicative base for proper implementation of schemes into actions.

PO4-Research and Ethics: This program outcome helps to recognize different value systems, the moral dimensions of the decision taken and the acceptance of responsibility for the decisions. Developing research aptitude with a strong ethical base provides a level of quality that can be expected only from a few. Research promotes the habit of delving deeper into the subject through a developed curiosity through ethical means of investigation thereby helping the students to cater to the growing expectations of the quality of services expected from them in the occupational sector. The curriculum offers platforms for developing the moral and ethical values of the students through conscientizing them about the consequences of relying in unethical practices for their academic works. It further introduces the student to the different realms of research and development as a prospective carrier.

PO5- Environment and Sustainability: This program outcome helps in understanding the impact of technology and business practices in societal and environmental context. These advocates appreciating the resources available in the environment by optimal usage thereby conserving and protecting the nature while resorting to developmental activities. The students are enlightened on the significance of accommodating strategies of conservations and pollution free environment in their lives. As we step into an era of globalisation that promises higher economic growth, the students are expected to bear in mind the adverse consequences of the past developmental path on our environment and consciously choose a path of sustainable development.

PO6- Global Perspectives: In line with the mission of the college, the program outcome of the undergraduate degree programs also highlights the prominence of developing global perspectives among the students. An empowered woman aware of the global perspectives and national realities has the capacity to shape the future of the nation. This program outcome helps the student to understand the economic, social and ecological connections that link the world's nations and people and their role in structuring these links. It helps in broadening the convictions and outlooks of the young generation towards the world and independently formulate a stand on which they can foresee the ways of the world.

3. Innovative Institutional Strategies for OBE implementation

3.1 deQ: OBE

The college is in constant search of the most pliable technological method that promises the upliftment of the students and makes them future ready because it realises that technology has always assisted man in attainment of the desired objectives through an effective and smart manner. Technology and its wonders have been judiciously employed by St. Joseph's College for implementing OBE at its best possible way. With this motive, the college has invested in an innovative and academically supportive software that makes OBE implementation in the curriculum effortless.

'deQ: OBE' is a software application that helps St. Josephs College to manage attainment calculations for Outcome Based Education (OBE). The application is deeply rooted in the expertise of academicians and IT professionals and aids the institution with defining, mapping and evaluating the attainment of the PO, PSOs and COs of the programs and courses. Additionally, it assists with the Direct/Indirect Assessment, internals/final examination, entering scores for assessments, examinations, and activities and finally with the automatic

weekly attainment calibration. The need for continuous evaluations is addressed at multiple levels through generation of course, semester and program consolidation reports and through individual students and batch progression reports. Engaging this software for academical purposes also promises timely analysis and identification of learners as slow, moderate and advanced enabling the instructors to direct their attention accordingly.

3.2 Qnsmarti for Examinations and Evaluations

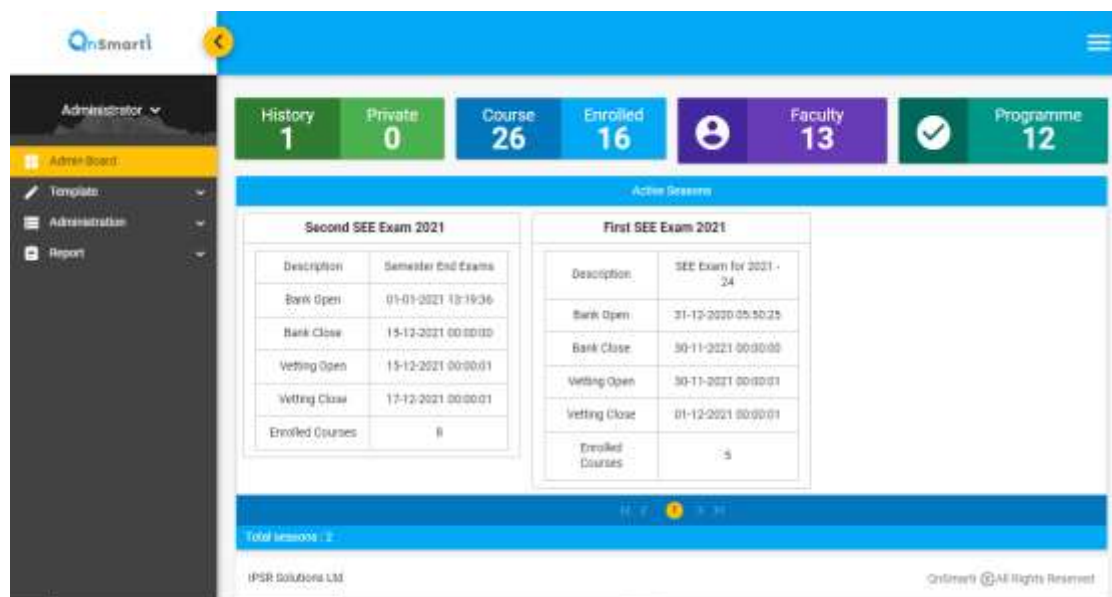
Examinations and evaluations are the most important phase of measuring student progression and attainment of results. The college utilises the services of Qnsmart software accredited by deQ software for facilitating the examination and evaluation procedures according to the specifications of OBE.

The faculty members and administrators are given due training for exploiting the services of the software during the induction programs and other frequently conducted training programs organised by the IQAC of the college that helps to acquaint them with the features of Qnsmart. The software enables the digitalization of the examination procedures and assist the faculty in generating innumerable and standardised question papers that are OBE based. The following features are the highlights of the software:

- Generation of infinite number of question papers according to OBE within no time
- A digital reservoir of questions in the question bank created and constantly revised under supervision of subject experts
- Re-usable Question Bank.
- Assignment of outcomes to every single question drafted in the question bank thereby facilitating evaluation of student progression based on designated outcomes
- QnSmart i has in-built Bloom's Taxonomy Model that helps teachers design assessment strategies for desired learning outcomes. Questions can be mapped to outcomes and outcome distribution in question papers can be visually audited
- Question papers can be designed with balanced Coverage of the Syllabus and control over Difficulty levels, Importance levels and Question types. Topical repetition can be avoided and selective learning by students discouraged
- Since question banks are created and maintained by the teaching faculty, various quality factors get integrated intrinsically. Question papers can be generated anytime required, thereby ensuring huge cost savings.
- Options for Question Bank vetting by self, peers and experts making it a fool-proof process.

3.3 OBE Based question bank software QnSmarti

Admin Board



Administrator dashboard in which it shows some counts and lists of available seasons.

- **History:** The total count of added question papers to the history.

Question papers are added to the history to avoid the repetition of questions from the previously generated question paper, based on the history policy, and for viewing or downloading the previous question papers.

- **Private:** It shows the count of total no of question papers the COE assistant has permission to access in order to make modifications or printing.
- **Course:** The count of the total number of courses/paper added to the application.
- **Enrolled:** The count of courses that are enrolled in the seasons.
- **Faculty:** The count of the total number of faculties in the application.
- **Programme:** The count of programmes added to the application.
- **Active Seasons:** The details of the currently active seasons are shown.

Seasons are a grouping of examinations conducted during the same time period into a group where a common bank open & close dates, vetting open & close dates, Bank and vetting cutoff can be set for all the courses under this group.

Details under Active season include the following:

- **Description:-** A short description about the season is shown.
- **Bank open and close dates:** The time allotted for the faculties to add/edit questions to the bank.

- Vetting open and close dates: The time allotted for the vector to do the vetting process.
- Vetting is the process of proofreading of the questions in the question bank in order to ensure its quality.
- Enrolled courses: Count of the total number of enrolled courses under each season.
- Total count of active seasons is shown in the bottom left side.

QP Template

Select Template->QP Template

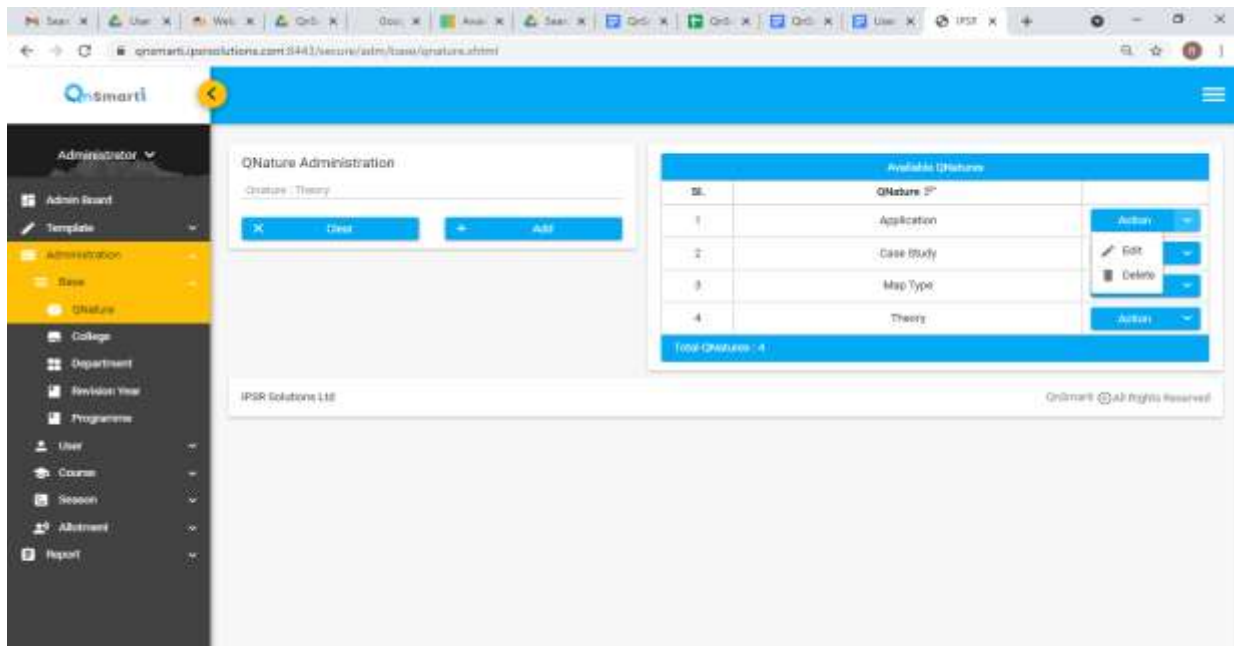
Sl No	Pattern Name	Template Name	Template Preview	Actions
1	Marian_Standard_90UOPG_HTML	Standard_UO_PG_90	Marian College Kuttikkanam (Autonomous) QNSMARTI:H:PGNAME QNSMARTI:H:S:SEMLETTER SEE Examination QNSMARTI:H:Y:MONTH QNSMARTI:H:Y:YEAR QNSMARTI:H:QPCODE Part A Answer All Questions	Preview Download
2	UG_75_A10_12_B5_10_C2_4_HTML	UG_75_A10_12_B5_10_C2_4_HTML_HTML_EnglisH_MARK	QNSMARTI:H:QPCODE Reg No : Name : IPSR Arts and Science College (Autonomous), Kottayam	Preview Download
3	UG_60_A10_12_B6_9_C2_4_HTML	UG_60_A10_12_B6_9_C2_4_HTML_HTML_EnglisH_MARK	QNSMARTI:H:QPCODE Reg No : Name : IPSR Arts and Science College (Autonomous), Kottayam QNSMARTI:H:PGNAME QNSMARTI:H:S:SEMLETTER SEE Examination	Preview Download
4	UG_60_A10_12_B6_9_C2_4_HTML	UG_60_A10_12_B6_9_C2_4_HTML_HTML_HTML_EnglisH...	IPSR Arts and Science College (Autonomous), Kottayam QNSMARTI:H:PGNAME QNSMARTI:H:S:SEMLETTER Internal	Preview Download

It shows the grid of Available QP Templates in which the admin can view and confirm the details such as pattern name, template name, template preview.

Under the Action button two options are provided: Preview, Download.

- **Preview:** Select Preview to preview the template.
- **Download:** Select Download to download the template.

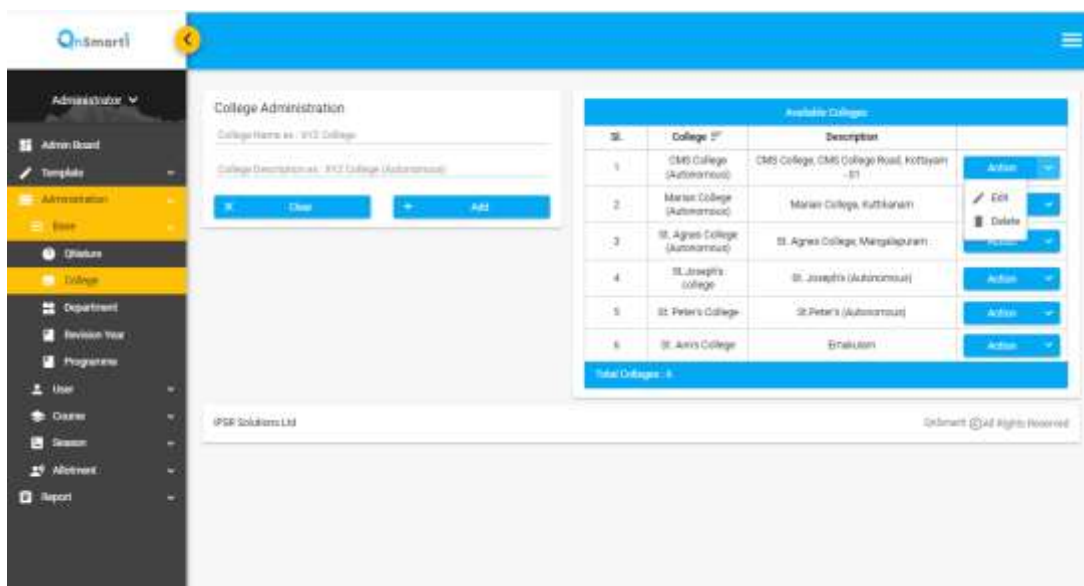
Select Administration-> Base-> QNature



“Qnature is defined as the nature/type of questions”.

In the screen ,on the left side under Qnature administration, the admin can add the nature of the question by entering the nature name and clicking add. Such added QNatures can be seen on the right side under available Qnatures. There is a sorting icon in the grid, the admin can click on that to sort the listed QNatures in ascending or descending order. An action button is provided for every corresponding Qnature in the grid in which there are two options: **Edit** and **Delete**. Select Edit to edit the QNature name and Select Delete to delete the QNature added.

Select Administration-> Base -> College

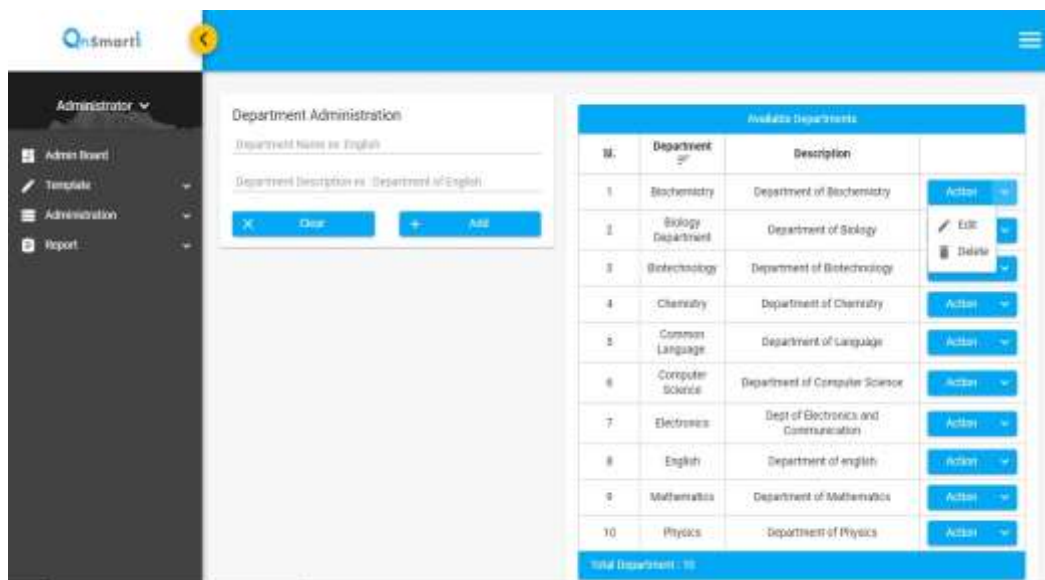


When the college wants to encourage faculties from other colleges to participate in the question bank development, in such cases those colleges can be added under this menu. On the left side under college administration, the admin can add the college by entering the college name & a short description about the college and then click add. Such added colleges can be seen on the

right side under available colleges. There is a sorting icon in the grid, the admin can click on that to sort the listed College names in ascending or descending order. An action button is provided for every corresponding college in the grid in which there are two options: **Edit** and **Delete**. Select Edit to edit the college details and Select Delete to delete the college added.

Manage Department

Select Administration-> Base -> Department



Admin can add and manage all the departments in the institution in this menu. On the left side under Department administration the admin can add the department by entering the department name & a short description about the department and then click add. Such added departments can be seen on the right side under available departments. There is a sorting icon in the grid, the admin can click on that to sort the listed Departments name in ascending or descending order. An action button is provided for every corresponding department in the grid in which there are two options: **Edit** and **Delete**. Select Edit to edit the department details and Select Delete to delete the department added.

Manage Revision year

Select Administration-> Base -> Revision year

The screenshot displays the 'Revision Year' management page. On the left, a sidebar menu lists various administrative functions, with 'Revision Year' highlighted. The main interface features a form titled 'Revision Year' with a text input for 'Revision Year(s): 2017', a dropdown for 'Revised Programmes', and 'Clear' and 'Add' buttons. To the right, a table titled 'Available Revision Years' lists years from 2021 to 2014, each with an 'Action' dropdown menu. The footer includes 'IPSR Solutions Ltd' and 'GoSmart! © All Rights Reserved'.

In this menu all the revision year of the courses are added.

On the left side under Revision year the admin can add the syllabus revision year by entering the year and can also select the Programmes from the drop down of which it has been revised and then click add. Such added revision year can be seen on the right side under available revision years. There is a sorting icon in the grid, the admin can click on that to sort the listed Revision Years in ascending or descending order. An action button is provided for every corresponding revision year in the grid in which there are two options: **Edit** and **Delete**. Select Edit to edit the year and select Delete to delete the year added.

Manage Programmes

Select Administration-> Base -> Programme

The screenshot displays the 'Programme Management' page. The left sidebar menu has 'Programme' selected. The main interface features a form with fields for 'Name *', 'Description *', 'Name of OP *', 'Revision *' (with year selection buttons), 'System *' (Semester/Year), 'Nature *' (UG, PG, M.Phil, Ph.D), 'Semester/Year *', and 'Department *'. Below the form is a table titled 'Available Programmes' with columns for SL, Department, Programme, System & Duration, Nature, and Revision(s). The table lists two programmes: 'BSc Computer Science' and 'BA Malayalam BA Malayalam'.

In this menu the admin can add and manage different programmes of the institution. Under programme management, the admin can add a programme by entering details such as

Name: Programme name (eg: M.Sc Biotechnology)

Description: A description about the programme(eg: The course is the intersection of two broad subjects - Biology and Technology)

Name at QP: The name that appears on the Question paper(eg: M.sc. Biotechnology Model I). **Revision:** The years in which syllabus revision of the courses under this programme have been done. Multiple selection of years are possible.

System: If the programme is a semester based system or year based system.

Nature: If the programme is UG /PG /M.Phil /Ph.D.

Semester/Year: Select the total number of semesters / years. If the admin selects the semester system on the top under system, then select the total number of semesters from the dropdown or if the admin selects the year system , then select the total number of years for the programme.

Department: Select the department which offers the programme from the dropdown list. After entering all the details, click add to add the programme.



Sl	Department	Programme	System & Duration	Nature	Revision(s)	Actions
1	Computer Science	BSc Computer Science BSc Computer Science	Semester - 6	UG	2019, 2015, 2020	Actions
2	Common Language	BA Malayalam BA Malayalam	Semester - 6	UG	2014, 2020, 2017	Update Revision Edit Delete
3	Biotechnology	B.Sc. Biotechnology B.Sc. Biotechnology	Semester - 6	UG	2020, 2019, 2021	Actions
4	Mathematics	B.Sc. Mathematics B.Sc. Mathematics Model I	Semester - 6	UG	2016, 2014, 2020	Actions
5	Common Language	BA Hindi BA Hindi	Semester - 6	UG	2015, 2020, 2019	Actions
6	Computer Science	MSc. Computer Science MSc. Computer Science	Semester - 4	PG	2014, 2019	Actions
7	Common Language	BA TAMIL BA TAMIL	Semester - 6	UG	2018, 2021, 2017, 2020	Actions
8	Biotechnology	B.Sc Biotechnology B.Sc Biotechnology	Semester - 6	UG	2017, 2020	Actions

There is a grid Available programmes in which all the programmes that are added in the application can be viewed. There is an option for search and filter in the grid where by entering the keyword the admin can filter the details. An action button is provided to the corresponding programme in the grid in which there are options such as **Update Revision, Edit** and **Delete**. Select Update Revision to add or delete the revision year. Select Edit to edit the programme name and details added. Select Delete to delete the programme.

Manage Users

Select Administration-> User-> Manage users

The screenshot displays the 'User Management' form in the OnSmarti system. The form includes the following fields and options:

- Name ***: Text input field.
- Mobile ***: Text input field.
- Email ***: Text input field.
- Username ***: Text input field with a note: 'Username: Space not allowed'.
- Password ***: Text input field.
- Department ***: Dropdown menu with the selected option: '- Department -'.
- College ***: Dropdown menu with the selected option: '- College -'.
- Options**:
 - Allow Login
 - Force Reset
- Role ***:
 - HoD
 - HoD Assistant
 - Faculty
 - CoE Assistant

Below the form are two buttons: 'Clear' (with an 'X' icon) and 'Add' (with a '+' icon). Underneath the form is a blue bar with '+ User Upload', '+ Import', and '+ Export' buttons. At the bottom, there is a table titled 'Available Users' with the following columns: Sl No, Name & Department, College, Username, Mobile & Email ID, Options, and Role(s).

In this menu the admin can create a user, manage their permission, assign roles. Under user management enter all the details and select add to add the user. The details include name, mobile number, email id, username, password, the department and the college the user belongs to. Select the options such as allow login and force reset. By default they will be selected. **Allow login:** If the admin wants to give login permission to the user then select it. **Force Reset:** If the admin wants the user to reset their password during their first login then select it. And finally select the role of the user if they are faculty, HoD, HoD Assistant, CoE Assistant. By default Faculty will be selected. Here Admin can assign multiple roles to the user at a time, i.e, if a user is a faculty and also HoD or if the user is a Faculty and also CoE assistant then the admin can assign those two roles while creating a user.

Click add to add the user.

Note : Once the user is added, the url link along with login credentials will be sent to the user in the registered mail id.

Sl.No	Name & Department	College	Username	Mobile & Email ID	Options	Role(s)	
1	Shruthi P S Computer Science	CMS College (Autonomous)	shruthi ps	9946783423 nibin.sunny@ps	Allow Login	Hub, Faculty , CoE Assistant	Actions
2	Surya PS Physics	St. Agnes College (Autonomous)	surya ps	9747604344 suryams@gnm	Allow Login	Faculty	Update User Info Reset Password Reset Options Update Roles Delete
3	Nibin Sunny Computer Science	CMS College (Autonomous)	nibin.sunny	9746324563 nibin@psrcol	Allow Login	Faculty	Actions
4	Nyfa Nibin Common Language	Marian College (Autonomous)	nyfa nibin	9967654360 nyfanibin@gnm	Allow Login	Faculty	Actions
5	Nayya Nibin Common Language	Marian College (Autonomous)	nayya.nibin	7847654321 nayanbin@gnm	Allow Login	Hub Assistant, Faculty	Actions
6	Neethu Sunny Physics	St. Agnes College (Autonomous)	neethu.sunny	8187654354 neethu.sunny@	Allow Login	Faculty	Actions

The admin can also add users in the application in bulk format, for that a template is provided in which the admin can enter all the details and upload it into the application. In on the top right there is a download icon, click on that to download the excel templates. In the template enter all the details and save and upload it. To upload, click user upload button which is on the top left side.

Click user upload button-> click upload.

There is a grid Available Users in which a list of all the users who are added in the application can be viewed. There is a sorting icon in the grid, the admin can click on that to sort the listed User Name, in alphabetical ascending or descending order. There is an option for search and filter in the grid where by entering the keyword the admin can filter the details. An action button is provided to the user in the grid in which there are options such as **Update User Info, Reset Password, Reset Options, Update Roles** and **Delete**. Select **update user** info to update or change the user details added. Select **Reset password** to reset the existing password. Select **Reset options** to reset the existing options selected. Select **update roles** to change or update the roles of the users. Select **Delete** to delete the user added.

Repository Management

Select Administration-> Course-> Repository

In this menu the admin can add the courses into the repository.

“Repository is the directory of the courses in the application”

Under Repository management the admin can add the courses into the application by entering the details asked and clicking add.

The details include the following :-

Code: Code of the course (Eg: BCS103)

Name: Name of the course (Eg: Basic Electronics and Computer Fundamentals (Core)) Nature: Select the required Qnature of the course.

Revision year: Syllabus Revision year of the course(Eg: 2020). SEE Pattern: Semester End Examination pattern.

Model Pattern: Model examination pattern. Internal pattern: Internal examination pattern.

Pattern selection is optional while adding the course. Click add to add the course.

SI No	Revision Year	Course	SEE	Model	Internal	Nature(s)	Actions
1	2020	ML3CCT03 മലയാളം പുസ്തകസംഗ്രഹം	UG_80_A10_12_B6_9_C	-	-	Application Theory	Actions Update Natures Edit Delete
2	2020	BCS103 Basic Electronics and Computer Fundamentals (Core)	UG_80_A10_12_B6_9_C	UG_60_A10_12_B6_9_C	UG_60_A10_12_B6_9_C	Application Theory, Case Study	Actions Edit Delete
3	2020	UJMAC1 Microbiology	UG_75_A10_12_B5_10_C	-	-	Application Theory, Case Study, Map Type	Actions
4	2020	TRUMM101.0 DISCRETE MATHEMATICS	UG_80_A10_12_B6_9_C	-	-	Application Theory	Actions
5	2019	BCS100	UG_80_A10_12_B6_9_C	-	-	Application Theory, Case	Actions

The admin can also add courses in the application in bulk format, for that a template is provided in which the admin can enter all the details and upload it into the application. On the top right there is a download icon, click on that to download the excel templates. In the template enter all the details and save and upload it. To upload, click course upload button which is on the top left side

Click course upload button-> click upload.

There is a grid Available Courses in which a list of all the courses that are added in the application can be viewed.

There is a sorting icon in the grid, the admin can click on that to sort the listed course's Course Code, in alphabetical ascending or descending order.

There is an option for search and filter in the grid where by entering the keyword the admin can filter the details.

An action button is provided to the corresponding Course in the grid in which there are options such as **Update Natures**, **Edit** and **Delete**.

Select Update natures to change QNature added for the course.

Select Edit to edit the details of the course and Delete to delete the course added.

Enroll Management

Select Administration-> Course-> Enroll

In this menu the admin can enroll the courses added into the programmes.

Under Enroll Management, the admin needs to select the programme from the drop down , once it is selected all the syllabus revision years added for the programme are shown. After

selecting the revision year, select the semester/year of the programme in which we need to add the course and then select the courses which are needed to be enrolled into the selected programme. Then click add to add the enrollment. The admin can also enroll courses in the application in bulk format, for which a template is provided in which the admin can enter all the details and upload it into the application.

On the top right there is a download icon, click on that to download the excel templates. In the template enter all the details and save and upload it. To upload, click enroll upload button which is on the top left side

Click Enroll upload button-> click upload.

Below there is a grid of available enrollments in which it lists the details of the enrolled courses in the Enrolled tab and the details of the not enrolled courses in the not enrolled tab.

There is an option for search and filter in the grid.

A delete option to delete the enrolled courses is given under the action button in the enrolled tab.

Season

Select Administration-> Season-> Season

Sl No	Season	Exam Month-Year	QBank Open/Close	Vetting Open/Close	Cut-off Bank/Vetting	Status	Actions
1	Second SEE Exam 2021	December-2021	01-01-2021 13:19:36 15-12-2021 00:00:00	15-12-2021 00:00:01 17-12-2021 00:00:01	17-12-2021 02:00:00 19-12-2021 00:00:01	Active	Actions

In this menu the admin can create a season and manage it.

Under Season Management the admin can add a season by entering the details asked and clicking add.

The details include the following:

Season Name: A name for the season (Eg: First SEE - UG_2021-24) Season Description: A description about the season.

Exam Month, Exam year: Month and year of the examination conducting.

Qbank open and close: Select the opening and closing dates of Question Bank for faculties to add or edit the questions.

Days allowed: Select the days allowed, based on which the bank cutoff and the vetting open, close and vetting cutoff are automatically generated.

Active: select it to make the season active. Click add to add the season.

Available Season							
Sl No	Season	Exam Month-Year	QBank Open/Close	Vetting Open/Close	Cut-off Bank/Vetting	Status	Actions
1	Second SEE Exam 2021	December-2021	01-01-2021 13-19:36 15-12-2021 00:00:00	15-12-2021 00:00:01 17-12-2021 00:00:01	17-12-2021 00:00:00 19-12-2021 00:00:01	Active	Actions Update Status Edit Delete Duplicate
2	First SEE Exam 2021	August-2021	31-12-2020 05:30:25 30-11-2021 00:00:00	30-11-2021 00:00:01 01-12-2021 00:00:01	01-12-2021 00:00:00 02-12-2021 00:00:01	Active	Actions
3	First SEE Exam 2020		13-11-2020 04:58:13 01-12-2020 17:04:45	01-12-2020 17:04:45 17-12-2020 17:04:45	15-12-2020 17:04:45 17-12-2020 17:04:45	Inactive	Actions
4	Season - 1		28-02-2021 19:59:25 31-03-2021 18:29:59	31-03-2021 18:30:00 05-04-2021 18:30:00	05-04-2021 18:29:59 10-04-2021 18:30:00	Inactive	Actions
5	3rd SEE exam 2021	November-2021	19-10-2021 11:42:29 15-11-2021 11:42:29	15-11-2021 11:42:30 20-11-2021 11:42:30	20-11-2021 11:42:29 15-12-2021 11:42:30	Inactive	Actions
6	season 4	November-2021	01-10-2021 15:17:09 30-10-2021 15:17:09	30-10-2021 15:17:10 01-11-2021 15:17:09	01-11-2021 15:17:09 09-11-2021 15:17:09	Inactive	Actions

The list of such added seasons can be seen under the grid available season.

There is an option for search and filter in the grid based on the season name and the exam date. The details can also be filtered based on the status of the season.

Under the action button there are several options provided such as **Update Status, Edit, Delete and Duplicate.**

Click **Update status** to update the status of the season such as Active or Inactive.

Click **Edit** to edit the details of the season. There is a **reset button** provided to reset the date and time of Qbank and vetting.

Click **Delete** to delete the season added.

Click **Duplicate** to duplicate the season. If we want to conduct an exam this year using the courses as same in the previous year's season, we can duplicate the season with new dates and year. Can duplicate the user rights along with the season duplication, if the Chief Examiner, Examiner or Vetter users are the same for this year also.

On selecting duplicate , a box like in screen shows in which details such as season name , a description, exam month and year, Qbank open,close, days allowed, bank cutoff, vetting open, close, vetting cutoff are set. Here there is an option to set the rights which is not mandatory. The active button will be inactive. Now click Duplicate to duplicate the season. Below the grid on the bottom left the count of total seasons is shown.

Programme Enrollment

Select Administration-> Season-> Enroll-P

SI No	Season	Season (Status)	Revision	Course	Enroll Status
1	Second SEE Exam 2021	Active	2019	MVC1001 Visual Culture and Communication	Active
2	Second SEE Exam 2021	Active	2019	LIGNIC002 PROSE AND MASS MEDIA - I	Active

In this menu the admin can enroll the courses under the selected programme to the season.

Under season enroll, Select the season from the drop down to which the course needs to be enrolled, then select the programme and the semester/ year from the drop down, select the status of the enrollment. By default it will be active and finally select the courses from the drop down. Multiple selection of courses is possible. The courses that are already enrolled will be seen disabled.

Then click add to add the enrollment.

The admin can also enroll courses to the seasons in bulk format, for which a template is provided in which the admin can enter all the details and upload it into the application.

On the right there is a download icon, click on that to download the excel templates. In the template enter all the details and save and upload it.

To upload, click enroll upload button which is on the left side. Click enroll upload button-> click upload.

Below there is a grid of available enrollment in which it lists the details of the enrolled courses with their season name, course name, revision, status of season and enrollments.

There is an option for search and filter in the grid. An option to filter the enrollments based on the status of the season and enrollment is also provided.

There are two options provided under the action button: **Update status** and **Delete**. Click update status to change the status of the enrollment such Active/Inactive.

Click Delete to delete the enrollment.

Course Enrollment

Select Administration-> Season-> Enroll-C

Sl No	Season	Season (Status)	Revision	Course	Enroll Status	Actions
1	Second SEE Exam 2021	Active	2019	MVC101 Visual Culture and Communication	Active	Update Status Delete
2	Second SEE Exam 2021	Active	2010	UGHNCC02 PROSE AND MASS MEDIA - I	Active	Update Status Delete
3	Second SEE Exam 2021	Active	2019	BCM1B01 Business Management	Active	Update Status Delete

In this menu the admin can enroll the courses directly into the season without a programme filter.

The Admin can enroll the courses into the season either through Enroll-P or Enroll-C.

Under season enroll, Select the season from the drop down to which the courses need to be enrolled.

Select the status of the enrollment, by default it will be active and select the courses from the drop down. Multiple selection of courses is possible. The courses that are already enrolled will be seen disabled.

Then click add to add the enrollment.

The admin can also enroll courses to the seasons in bulk format, for which a template is provided in which the admin can enter all the details and upload it into the application.

On the right there is a download icon, click on that to download the excel templates. In the template enter all the details and save and upload it.

To upload, click enroll upload button which is on the left side. Click enroll upload button-> click upload.

Below there is a grid of available enrollment in which it lists the details of the enrolled courses with their season name, course name, revision, status of season and enrollments.

There is an option for search and filter in the grid. An option to filter the enrollments based on the status of the season and enrollment is also provided.

There are two options provided under the action button: **Update status** and **Delete**. Click update status to change the status of the enrollment such as Active/Inactive. Click Delete to delete the enrollment.

Manage Allotment

Select Administration-> Allotment-> Allotment

SI No	Season	Revision	Course	Chief Examiner	Examiner(s)	Vetter(s)	Actions
1	Second SEE Exam 2021 (Active)	2019	MVC1CG1 Visual Culture and Communication	Naysa Nbin	Naysa Nbin	Nbin Sunny	Actions Update Allotment Update Portal
2	Second SEE Exam 2021 (Active)	2019	UGHMCC02 PROSE AND MASS MEDIA - I	Neethu Sunny	Neethu Sunny	Nbin Sunny	Actions
3	Second SEE Exam 2021 (Active)	2019	BCM1801 Business Management	Surya PS	Sruthy P S, Naysa Nbin, Nbin Sunny	Nbin Sunny	Actions
4	Second SEE Exam 2021 (Active)	2020	BCS103 Basic Electronics and Computer Fundamentals (Core)	Sruthy P S	Sruthy P S, Nbin Sunny	Nyla Nbin	Actions
5	Second SEE Exam 2021 (Active)	2020	BATAM001 கருத்துக் கணிப்பீடு	Sruthy P S	Sruthy P S, Nbin Sunny	Surya PS	Actions

In this menu, Admin can assign the examiner, chief examiner, vetter for the courses that are enrolled to a season.

Chief Examiner: The incharge of the question bank ,decides how to divide a syllabus, and incharge in charge of uploading it. Only one faculty can be assigned as chief examiner for a course

Examiner: The associate incharge of the question bank. Is responsible for adding questions into the question bank. One or more examiners can be assigned for a course.

Vetter: Is responsible for the proofreading of the questions in the bank. One or more vetter can be assigned for a course.

The top, select the season from the drop down.

To assign roles, first download the template by clicking on the download icon on the right side. In this template the admin can assign roles in bulk for all the courses in the selected season.

ID	Season	Revision	Course Code	Course Name	Modify	Chief Examiner	Examiner 1	Examiner 2
83	Second SEM Exam 2021	2018	AVCS081	Visual Culture and Communication	no	Nayaa Nibin[nayaa.nibin@nayanlang@gmail.com]		
86	Second SEM Exam 2021	2018	UGHNC08	PROS AND MASS MEDIA - I	no	Neethu Sunny[neethu.Neethu.Sunny@pmsolutions.co]		
83	Second SEM Exam 2021	2018	BCM1801	Business Management	no	Surya PS[surya.p.s@sruthy.p@shibin.surya.Nayaa.Nibin@nayanlang]		
88	Second SEM Exam 2021	2008	BCS108	Basic Electronics and Computer Fundamentals	no	Sruthy P [sruthy.p@shibin.surya.Nayaa.Nibin@nayanlang]		
84	Second SEM Exam 2021	2008	BATAN081	கணிதம் - இயற்கை	no	Sruthy P [sruthy.p@shibin.surya.Nayaa.Nibin@nayanlang]		
83	Second SEM Exam 2021	2008	INMNV118	DISCRETE MATHEMATICS	no	Sruthy P [sruthy.p@shibin.surya.Nayaa.Nibin@nayanlang]		
82	Second SEM Exam 2021	2008	UG44CL	Microbiology	no	Sruthy P [sruthy.p@shibin.surya.Nayaa.Nibin@nayanlang]		
83	Second SEM Exam 2021	2008	MLNOC003	മലയാളം - പ്രവേശനപരീക്ഷ	no	Nayaa Nibin[nayaa.nibin@nayanlang]	Sruthy P [sruthy.p@shibin.surya.Nayaa.Nibin@nayanlang]	

An excel template is downloaded in which it contains details of courses such as season, revision year, course code, and course name. If the Chief examiner, examiner and vetter are assigned already then it will be shown in the excel, if not then they can be added here. The data can be processed only if under modify if the status is yes else the data cannot be added or modified.

In the template after assigning the roles for the courses, save and upload it. To upload, click Allotment upload button which is on the top left side.

Click Allotment upload button-> click upload.

There is a grid Available allotment in which the list of such added allotments to the respective courses are shown.

Under Action there are two options: **Update Allotment** and **Update Portal**.

Update Allotment: If the admin wants to assign roles for the individual courses, then admin can select update allotment of the corresponding course, then assign the roles such as Chief Examiner, Examiners and vettors from the drop down and click Save. Also if the admin wants to change the already assigned roles that can also be done here.

Note: A Mail will be sent to the registered email id of the faculty with details of the rights allotted during this update allotment.

Update Portal: Through this option the Admin can change the portal opening and closing dates only for a single course. i.e., bank open, close and vetting open, close dates.

After selecting the dates click Update to update the portal.

There is an option to search and filter the courses in the available allotment grid.

Manage Migration Allotment

Select Administration-> Allotment-> Migration Allotment

In this menu, the admin can give migration permission to the faculty.

“Migration is importing questions from one course to another.”

Migration is done when a faculty needs to migrate the questions, from one course/question bank to another, due to the syllabus revision or other reasons. For that the faculty needs migrating access.

Under enroll management admin can set the migrating access to a faculty.

Faculty: The faculty to whom migrating permission to be given should be selected from the drop down.

Revision: Then the syllabus revision of the course should be selected.

Start date and End date : The date/time period the migrating permission is given.

Migrate from: The course from which the faculty can migrate the question is selected from the drop.

Then click Add.

Such courses for which the migrating access are given are listed in the grid Active allotments along with the details of the course.

Under Action there is a Delete button. Click on that to delete the Migrating allotment.

In the grid there is an option for search and filter.

Manage Reassign Allotment

Select Administration-> Allotment-> Reassign Allotment

The screenshot displays the QnSmarti web application interface. On the left is a dark sidebar menu with the 'Administrator' role selected. The main content area is titled 'Season Enroll' and contains a form with the following fields:

- Season * (Dropdown menu showing '-Seasons-')
- Course * (Dropdown menu showing '-Course-')
- Inactive Examiners * (Dropdown menu showing '-Examiners-')
- Reassigned To * (Dropdown menu showing '-Examiners-')

Below the form are two buttons: 'Cancel' (with a close icon) and 'Reassign' (with a plus icon). Underneath is a table titled 'Reassigned Allotments' with the following columns: S/No, Season, Season (Status), Revision, Course, Inactive User, and Reassigned To. The table currently shows 'No records found.' and a summary row indicating 'Total Allotment Reassigned : 0'. At the bottom of the page, there is a footer with 'IPSR Solutions Ltd' on the left and 'QnSmarti © All Rights Reserved' on the right.

In this menu, Admin can change the user rights of a particular course from an inactive/discontinued faculty to an active faculty, or if a faculty has already added the questions into a course in the previous season, and but in the current season the user has no rights to that course then in such cases this rights of the Inactive faculty can be assigned to an active faculty of the current season through this reassign option, to manage the existing questions.

Under season enrollment, the season is selected to which it should be reassigned and then the course and the inactive examiners.

Reassigned to: to whom it is reassigned.(Active faculty) Then click reassign.

Such reassigned allotments can be seen listed in the grid Reassigned Allotments. There is an option for search and filter in the grid.

Users Report

Select Report-> Users

SI No.	Department	Name	Mobile & Email ID	Reports
1	Computer Science	Shruti P S	-9946783423 rbin.suryy@persolutions.com	Reports
2	Physica	Surya PS	9747634344 suryanolo@gmail.com	Allotments
3	Computer Science	Nitin Sunny	9746504563 nbin@patsolutions.com	Reports
4	Common Language	Nitya Nibin	9987654562 nityanbin@gmail.com	Reports
5	Common Language	Nitya Nibin	7847654321 nityanbin@gmail.com	Reports
6	Physica	Neethu Sunny	8187634534 neethu.sunny@persolutions.com	Reports
7	Biotechnology	Remya R	7896025475 123@persolutions.com	Reports
8	Common Language	Aiswarya	6598743236 456@gmail.com	Reports
9	Computer Science	Aiswathy S	9981310984 qsmart@persolutions.com	Reports
10	Mathematics	Manju Nibin	9744774774 nbin1@persolutions.com	Reports

In this menu the admin can view the reports of all the users added into the application.

Details such as Name, Department and contact details are shown in the grid Available Users

There is an option for search and filter in the grid.

Under the Reports button there is an option: **Allotments**

Select Allotments to view the report of the Allotments as shown in Fig(4.1.2) of the corresponding user selected.

In the Allotment report grid details such as season, revision, course, rights, Qcount are in the grid

QCount: The count of the total number of questions added to the Question bank.

SI No.	Season	Revision	Course	Right(s)	QCount
1	Second SEE Exam 2021 (Active)	2020	BCS103 Basic Electronics and Computer Fundamentals (Core)	Chief Examiner , Examiner	99
2	Second SEE Exam 2021 (Active)	2020	LUAC1 Microbiology	Chief Examiner , Examiner	21
3	Second SEE Exam 2021 (Active)	2020	19UMM131 B DISCRETE MATHEMATICS	Chief Examiner , Examiner	53
4	First SEE Exam 2020 (Inactive)	2020	BCS103 Basic Electronics and Computer Fundamentals (Core)	Chief Examiner , Examiner , Visitor	0
5	First SEE Exam 2020 (Inactive)	2020	LUAC1 Microbiology	Chief Examiner , Examiner	0
6	First SEE Exam 2020 (Inactive)	2020	19UMM131 B DISCRETE MATHEMATICS	Chief Examiner , Examiner	0

There is an option for search and filter in the grid allotment report.

The allotment Report can be downloaded in Excel format. Click the download button, which is on the top right to download the allotment report.

Course Report

Select Report-> Course

Here in the selection, the report can be fetched by either department, season or revision year wise.

Sl	Programme	Sem/Yr	Department	Pattern(SEE)	Revision	Course	Reports
1	BSc Computer Science	2	Computer Science	UG_80_A10_1	2019	UGHNCC02 PROSE AND MASS MEDIA - I	Health Allotments
2	BSc Computer Science	2	Computer Science	PG_30_AA_7_E	2019	MVCT0D1 Visual Culture and Communication	Reports
3	BSc Computer Science	2	Computer Science	UG_80_A10_1	2019	BCM1801 Business Management	Reports
4	BSc Computer Science	1	Computer Science	--	2020	BCS103 Basic Electronics and Computer Fundamentals (Core)	Reports
5	BSc Computer Science	1	Computer Science	UG_80_A10_1	2020	BCS103 Basic Electronics and Computer Fundamentals (Core)	Reports
6	BSc Computer Science	1	Computer Science	--	2020	BCS103 Basic Electronics and Computer	Reports

In this menu the admin can view the reports of courses in the application.

Details such as Programme, semester/ year, Department, SEE Pattern, Revision, Course can in this report there are two options in Reports: **Health** and **Allotments**.

Health: The report of the status/health of the question bank of the corresponding course is shown.

Allotments: The Report of the allotments of the corresponding course is shown.

There is an option to search and filter in the grid Available courses. The admin can also sort the courses in alphabetical ascending/descending order by clicking on the sorting icon in course.

Below in the grid the count of total enrolled courses based on the selection is shown.

On the top right there is a download button. Click on that to download the course report in excel format.

The screenshot shows the 'Basic' tab of the QSmart! Admin Dashboard. The main content area displays a grid of 12 summary tables for the course 'BCH101 - Basic Electronics and Computer Fundamentals (Core)'. The tables are organized as follows:

- Faculty Contribution:** Lists faculty members and their question counts. Total Questions: 161.
- Unit Wise Question Count:** Lists questions by module and unit. Total Unit: 38.
- Season Wise Question Count:** Lists questions by season. Total Season: 1.
- Module Wise Unit Count:** Lists units by module. Total Modules: 6.
- Module Wise Question Count:** Lists questions by module. Total Module: 6.
- Section Wise Question Count:** Lists questions by section. Total Sections: 0.
- Taxonomy Wise Question Count:** Lists questions by taxonomy. Total Taxonomy: 6.
- Important Wise Question Count:** Lists questions by importance. Total Importance: 3.
- Levels Wise Question Count:** Lists questions by level. Total Levels: 3.
- Nature Wise Question Count:** Lists questions by nature. Total Nature: 5.
- Expire Wise Question Count:** Lists questions by expiration date. Total Expire: 6.

The Report of the health of the question bank is shown. Here there are several tabs such as: **Basic:** In this tab, Admin can view the tabular representation of the details related to questions in the bank.

- **Faculty Contribution:** The faculty handling the selected course and the count of the questions added by them.
- **Unit Wise Question Count:** The count of Questions in each unit module wise of the course.
- **Season wise Question count:** The count of questions added to the seasons enrolled.
- **Module wise unit count:** The count of the total units under each module of the course.
- **Module wise question count:** The count of the questions added module wise.
- **Section wise Question count:** The count of the total questions added section wise.
- **Taxonomy wise question count:** The count of total questions added taxonomy wise criterias.
- **Important wise question count:** The count of the total questions added importance wise i.e Normal, Important, Very important.

- **Levels wise question count:** The count of the total questions added level wise- i.e easy, medium and challenging.
- **Nature wise question count:** The count of the questions added Question nature wise of the course.
- **Expiry wise Question count:** The count of the total questions added based on its expiry period. In the application currently the expiry is in 5 categories: expired, expired, will be expiring in 3 months, 6 months, 9 months and 12 months.

Basic(G): In this tab it shows the graphical representation of the Basic tab.

Section: It is similar to the basic tab, it shows the report section wise selected from the drop down.

Module: It is similar to the basic tab, it shows the report module wise selected from the drop down.

Unit: It is similar to the basic tab, it shows the report unit wise selected from the drop down.

Taxonomy: It is similar to the basic tab, it shows the report Taxonomy wise selected from the drop down.

Importance: It is similar to the basic tab, it shows the report Importance wise selected from the drop down.

Level: It is similar to the basic tab, it shows the report Level wise selected from the drop down.

Nature: It is similar to the basic tab, it shows the report Nature wise selected from the drop down.

Expire: It is similar to the basic tab, it shows the report Expire wise selected from the drop down.

Bank Status: The bank status is shown based on the distribution set for the course. The distribution can be selected from the drop down.

Module	Required Units	Question Available Units	Available Questions	Available Units in QB	Missing Units in QB
1	3	3	18	1,2,3	4,5
2	0	1	1	1	2,3
3	5	5	15	1,2,3,4,7	5,6
4	8	4	21	1,2,4,5	3,6,7,8,9,10,11
5	2	4	13	1,3,6,10	2,5,6,7,8,9

The bank status report is shown with grids such as:

- **Allotment:** The Chief examiner, Examiners, vettors allotted for the course are shown.
- **Overall bank status:** It shows the following,

QCount: Count of total questions added into the bank.

Syllabus unit count: The count of units in the syllabus.

Question unit count: The count of units in which the questions are added.

Pattern Question count: The count of questions needed to generate a question paper according to the pattern.

- **Section Wise status:** The status of the Question bank section wise based on the distribution. It shows the following,

Pattern QCount: The count of questions required based on the pattern for each section.

Bank QCount: The count of questions in the bank under each section.

Module Wise Report: It shows the count of questions module wise. It includes the following.

- **Required Units:** The total units required for each module according to the distribution.
- **Question available units:** The total units in which questions are available for each module.
- **Available Question:** The total number of questions added in each module.
- **Available units in QB:** The units from which questions are added.
- **Missing units in QB:** The units from which the questions are not added.

Below in the grid the total count of sections is shown.

On the top right there is a download icon. Click on that to download the bank status report in excel format.

The screenshot shows the OnSmart! Admin interface. The left sidebar contains navigation options: Admin Board, Template, Administration, Report (highlighted), Users, Course, QBank, CO Status, and Migration. The main content area displays the 'Allotments' report for the course 'BCE201 : Basic Electronics and Computer Fundamentals (Qns)'. The report includes a table with the following data:

Sl No	Season	Revision	Chief Examiner :	Examiner(s)	Vetter(s)
1	Second SEE Exam 2021 (Active)	2020	Sruthy P S	Sruthy P S, Nibin Sunny	Nyla Nibin
2	First SEE Exam 2020 (Inactive)	2020	Sruthy P S	Sruthy P S, Nibin Sunny	Sruthy P S, Nibin Sunny

Below the table, it shows 'Total allotment : 2'. The footer of the page includes 'IPSR Solutions Ltd' and 'OnSmart! All Rights Reserved'.

The Report of the allotments of the question bank is shown.

In the grid Available Allotment, the details such as season, revision, Chief examiner, examiners and vettors of the course are shown.

There is an option to search and filter in the grid.

Below in the grid, the count of total allotment for the selected course is shown.

QBank Report

Select Report-> QBank

Here in the selection, the report can be fetched by selecting any of the following- college, department, season, revision year or user and then the start date and end date which is mandatory.

The date is selected to fetch the reports of the selected time period.

Sl No	Course	QCount	Modified QCount	Faculty Wise Report									
1	MVCT001 Visual Culture and Communication	0	0										
2	ML30CT03 Basic Electronics and Computer Fundamentals (Core)	150	100	<table border="1"> <thead> <tr> <th>User</th> <th>College</th> <th>QCount</th> </tr> </thead> <tbody> <tr> <td>Nayya Nilan</td> <td>Marian College (Autonomous)</td> <td>150</td> </tr> </tbody> </table>	User	College	QCount	Nayya Nilan	Marian College (Autonomous)	150			
User	College	QCount											
Nayya Nilan	Marian College (Autonomous)	150											
3	BCS103 Basic Electronics and Computer Fundamentals (Core)	322	230	<table border="1"> <thead> <tr> <th>User</th> <th>College</th> <th>QCount</th> </tr> </thead> <tbody> <tr> <td>Gruffy P S</td> <td>CMS College (Autonomous)</td> <td>196</td> </tr> <tr> <td>Nilan Sunny</td> <td>CMS College (Autonomous)</td> <td>124</td> </tr> </tbody> </table>	User	College	QCount	Gruffy P S	CMS College (Autonomous)	196	Nilan Sunny	CMS College (Autonomous)	124
User	College	QCount											
Gruffy P S	CMS College (Autonomous)	196											
Nilan Sunny	CMS College (Autonomous)	124											

The report of the Qbank is shown.

In the grid, QB Status details such as Course, Qcount, Modified QCount and Faculty wise report are shown.

Qcount: The count of questions added to the bank within the selected time period.

Modified Qcount: The count of questions in the bank that are modified within the selected time period.

Faculty wise report: Under this, the faculty details , college name and the count of questions added within the selected time period.

Below in the grid, the count of total enrolled courses based on the selection are shown. There is an option for search and filter in the grid.

On the top right there is a download button. Click on that to download the course report in excel format.

CO Status Report

Select Report-> CO Status

Here in the selection, the report can be fetched by either department, season or revision year wise.

The screenshot displays the OnSmarti interface. On the left is a dark sidebar menu with options: Administrator, Admin Board, Template, Administration, Report (highlighted), Users, Course, QBank, CO Status, and Migration. The main content area has a blue header with 'Report Based On' and 'Season - Second Sem Exam 2021'. Below this are two reports:

CO Status Report

Sl No	Total Number Of Courses	Fully Mapped	Partially Mapped	Not Mapped
1	6	1	2	3

Course Wise Status Report

Sl No	Course	Question Count	Mapped Q Count	Not Mapped Q Count
1	ML30CT03 മലയാളം - ദൃശ്യശബ്ദസാഹിത്യം	75	1	74
2	BCS103 Basic Electronics and Computer Fundamentals (Cont)	161	161	0
3	LIJAA01 Microbiology	35	0	35
4	19LBM131.9 DISCRETE MATHEMATICS	153	17	136
5	U39-NECC02 PROSE AND MASS MEDIA - I	145	0	145
6	MVC101 Visual Culture and Communication	0	0	0

The report of co status is shown.

In the grid CO Status report , the overall report of the courses such as total number of courses, courses that are fully mapped, courses that are partially mapped and the courses that are not mapped are shown.

In the grid Course Wise status report , the individual status of the courses such as the total questions added to the course, count of questions that are mapped and the count of questions that are not mapped are shown.

There is an option to search and filter the courses on the grid.

Below in the grid the count of total courses based on selection is shown.

Migration Report

Select Report-> Migration

Here in the selection, the report can be fetched by selecting any of the following- college, department or user and then the start date and end date which is mandatory.

The date is selected to fetch the reports of the selected time period.

S.No	Faculty	Revision Year	Course	Start Date	End Date
1	Stufty P S	2020	BCS103 Basic Electronics and Computer Fundamentals (Core)	12-10-2021 00:00	14-10-2021 00:00
2	Stufty P S	2020	ML30CT03 മലയാളം - നൂറ്റാണ്ടുകളിലെ നിലവിളി	15-05-2021 00:00	18-05-2021 00:00
3	Stufty P S	2019	EN10CT01 FINE TUNE YOUR ENGLISH	01-03-2021 00:00	05-03-2021 00:00
4	Stufty P S	2020	BATAM001 കമ്പ്യൂട്ടർ ഗ്രാഫിക്സ്	21-05-2021 00:00	23-05-2021 00:00
5	Stufty P S	2019	GDW4CC02 PROSE AND MASS MEDIA - I	29-11-2021 00:00	15-12-2021 00:00
6	Stufty P S	2019	BCS100 Basic Electronics	23-09-2021 00:00	30-09-2021 00:00
7	Stufty P S	2018	BCS104 Computer application	01-10-2021 00:00	04-10-2021 00:00

Total Allotment : 7

The report of the Migration is shown.

In the grid Active allotments, admin can view the details such as

Faculty: The faculty to whom the migration rights were given.

Revision year: The revision year of the course.

Course: The course for which migration rights were given.

Start and End date: The time period in which migration rights were given for the faculty.

There is an option to search and filter in the grid.

Below in the grid, the count of total allotments based on the selection is shown.

3.4 Strategies for Slow, Average and Advanced Learners

Slow Learners: The slow learners are given extreme care for rendering the concepts of the syllabus in a comprehensible manner. The remedial classes are duly recorded or documented with proper timetable and attendance. Assignment and activities are designed to match the pace and time of the slow learners. Students learn best in their comfort zones and hence there are sufficient student study groups for peer-to-peer learning.

Medium Learners: For the medium learners, there are special doubt clearance sessions for proper comprehension of concepts. Advanced assignments and assessments are specifically designed to meet their academical needs. Learning materials and activities are planned for self-paced learning for independent learning experiences.

Advanced Learners: Advanced learners require advanced learning methodologies to provide an engaging learning atmosphere. Apart from the curriculum, they are given rigorous training for competitive examinations and are encouraged to participate in conferences, workshops and other academically relevant activities. There is professional level training guaranteed for the career development prospects of the advanced learners.

3.5 Criteria for the attainment of Course outcome

Attainment of the course outcomes can be assessed based on the following criteria:

Component	Weightage in %
Continuous Internal Assessment test I	25%
Continuous Internal Assessment test II	
Third Component	
End Semester Examination	75%

Third Component assessment includes the following methods.

1. Quiz
2. Individual viva or group viva
3. Class tests.
4. Mini Projects
5. Lab / Field / Practical work / Case study
6. Group discussion
7. Seminar
8. Assignment

3.6 Criteria for the attainment of Programme specific outcome and Programme outcome

Attainments of Programme specific outcome and Programme outcome are evaluated through direct and indirect (Exit survey) method. 75% of the weights is given to direct method and 25% of the weights is given to indirect method.

Direct Method

Step1: Map Cos to PSO and PO

Step 2: Compute the average scores of mapped Cos for each PSO and PO.

Step 3: Convert the resulting value to 100 and take 75% of it as the contribution from direct method.

Step 4: Compute the scores corresponding to PSOs and POs from exit survey report.

Step 5: Convert the resulting value to 100 and take 25% of it as the contribution from indirect method.

Step 6: Resulting sum of the scores from direct method and indirect method will give the overall scores of PSOs and POs.

Levels of Achievement

Levels of achievement are set by the OBE preparation committee in discussion with the experts based on last three year's results. It is fixed as follows:

Score Class	Level of Attainment
76-100	High
51-75	Moderate
0-50	Low

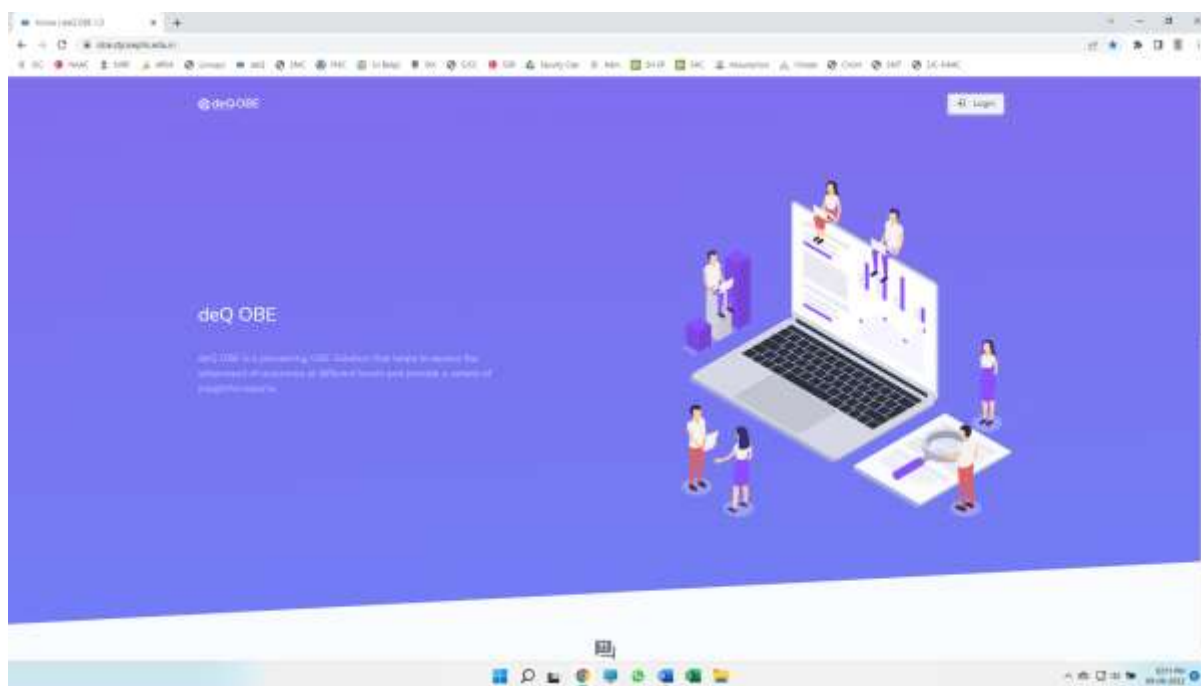
These levels will be reviewed and will update each year by incorporating the previous year's result.

Action taken

OBE attainment results will analyse department wise and will act accordingly to improve the level of attainment if it is low. In addition, each department will pursue initiatives to improve the quality of teaching and syllabus to increase target value.

4. deQ: OBE software interface

The access to deQ:OBE can be attained by signing in with their official login page at www.obe.stjosephs.edu.in. The software provides the users with a secure login experience supported with strong cyber security.

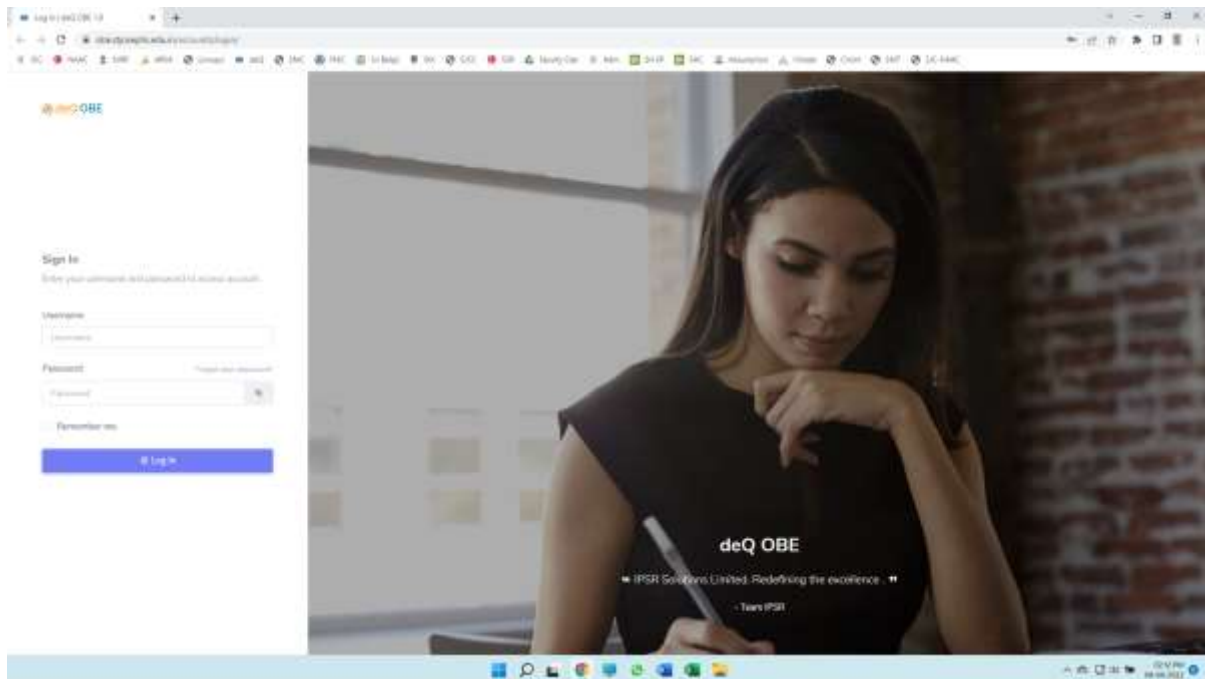


The software access is granted via three basic controlling user modes namely:

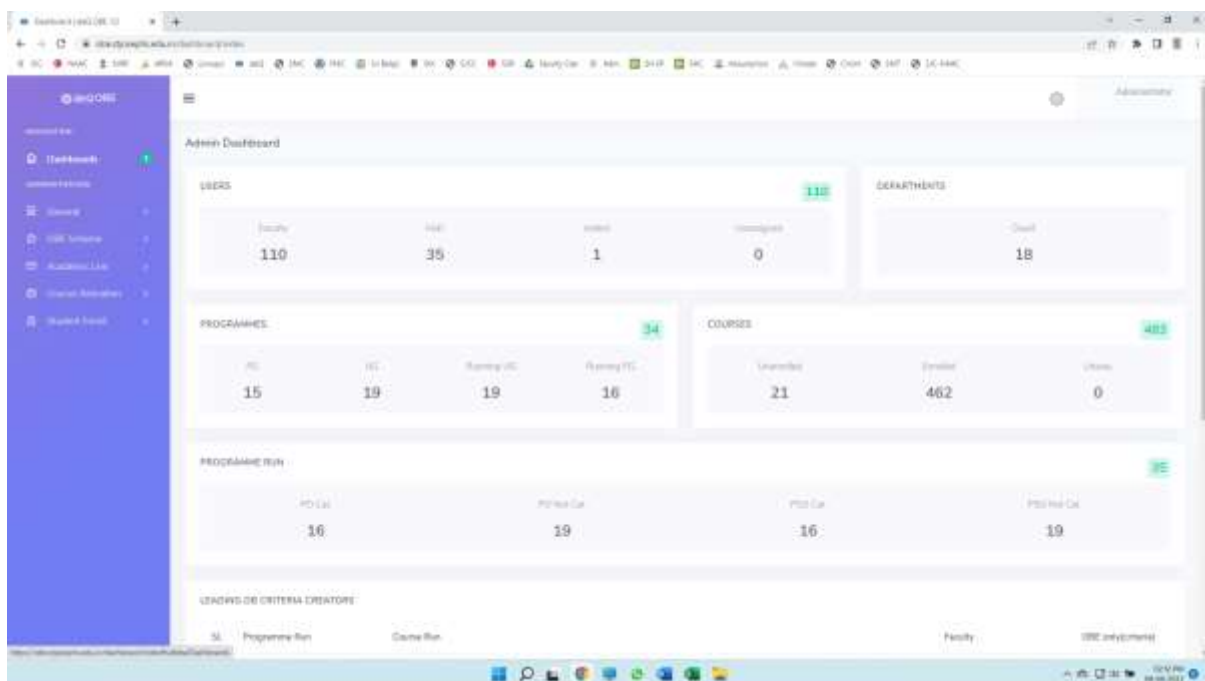
- Admin
- HoD
- Faculty

They are provided with a unique password for login access. If the passwords could not be remembered, the account users can gain back access and reset their passwords through the 'forgot your password' option available during login.

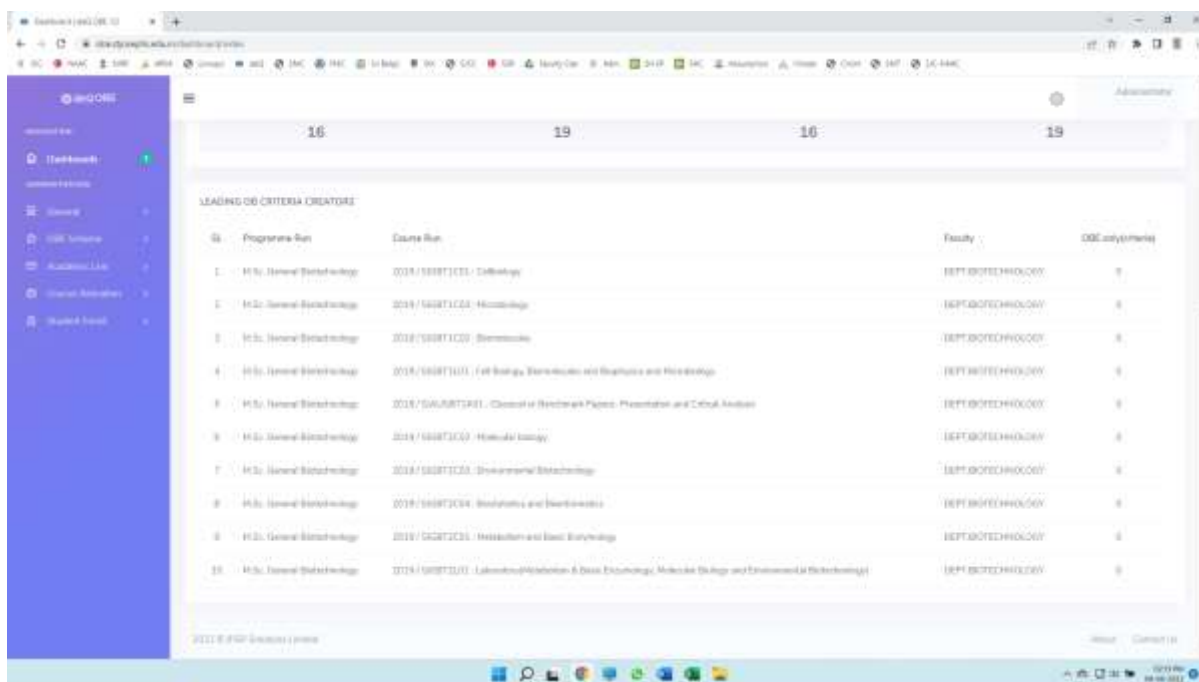
4.1 Admin dashboard



The admin dashboard page contains basic details that contain information of the total number of users, faculty and HoDs. It also provides information summary of the active users of the software, the number of programs offered by each department and the number of courses at present run by the institution.

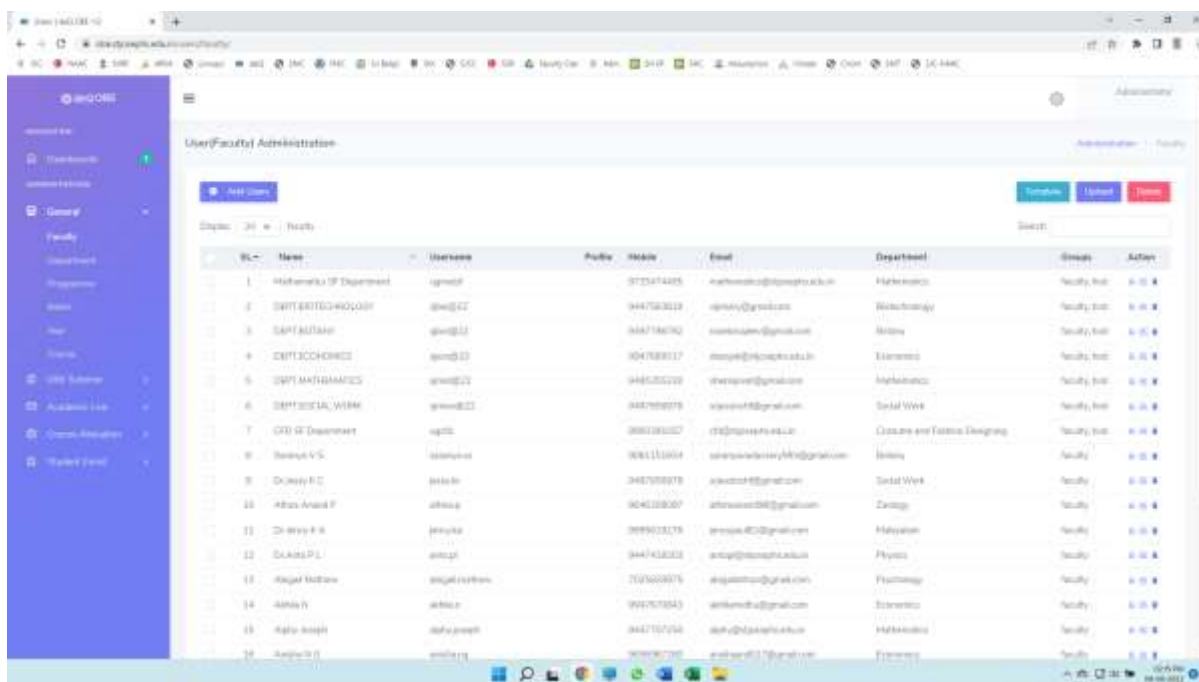


Going further, the home page of the admin dashboard offers the features of navigating through the programs and courses run in the institution with additional information of the departments' handling the courses.

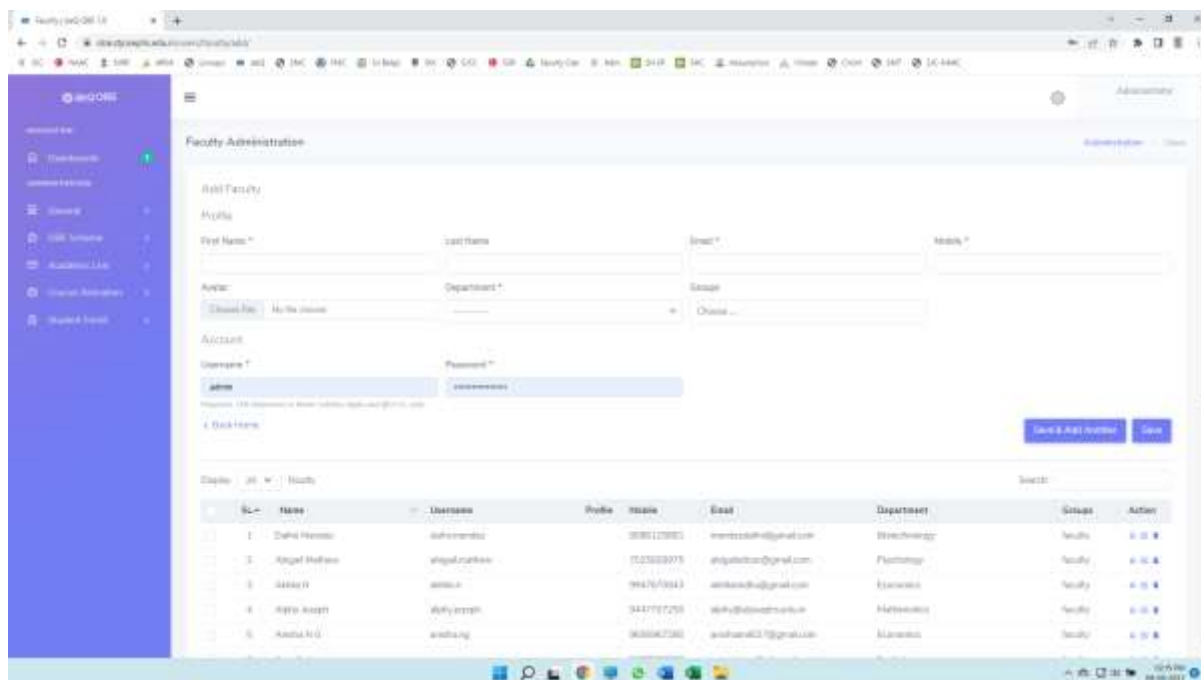


On the left side controlling panel, the ‘General’ option serves the purpose of conveying and editing the details of the faculty, departments, programs, batches and the courses available in the institution. The administrator can easily locate any faculty of any department through the ‘search’ option available on the top right corner of the faculty list.

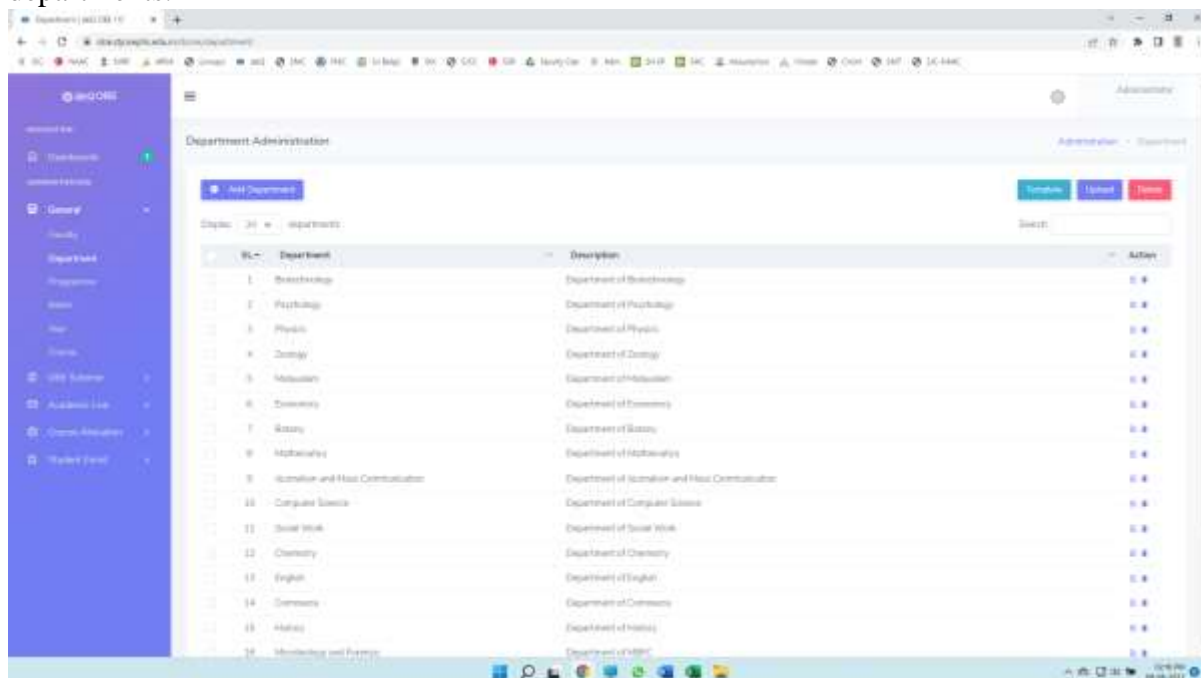
The admin can add/delete/edit the information of the faculty in this section. Single faculty entry can be manually added through the ‘Add Users’ option available in the top left of the page or bulk entries can be made through clicking on the ‘template’ option available in the right.



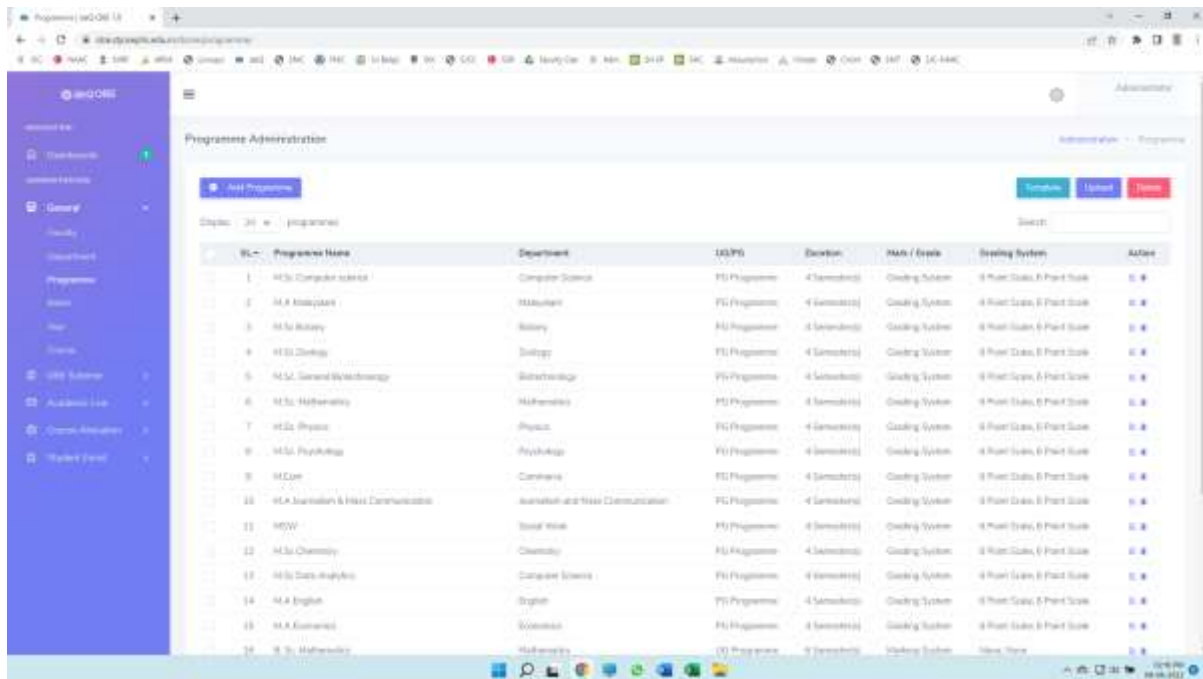
The administrator can edit the details or add new faculty details in this panel and assign them with the username and password for accessing the faculty unit in deQ: OBE. Any number of faculty details can be added/edited and saved here.



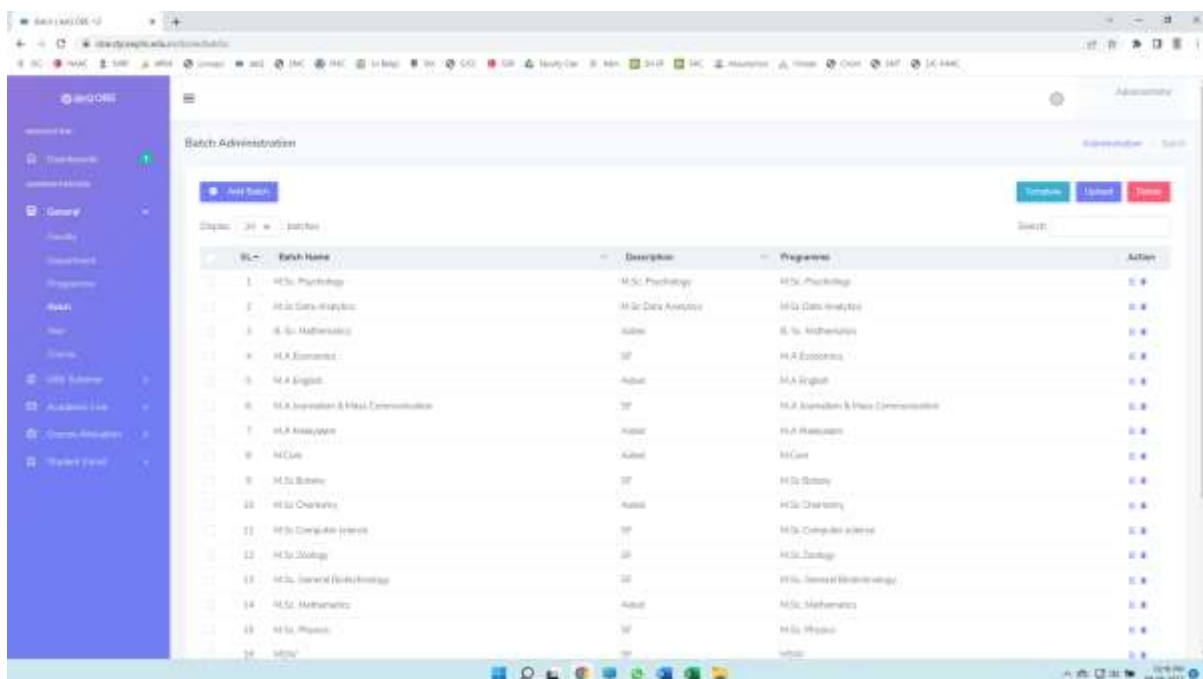
The next functional option in 'General' is 'department' that offers the user the facility of identifying and locating the departments in the institution. This further provides the option for adding or editing the details of the course programs offered from the respective departments. The departmental login access can be provided to the HoD of the concerned departments.



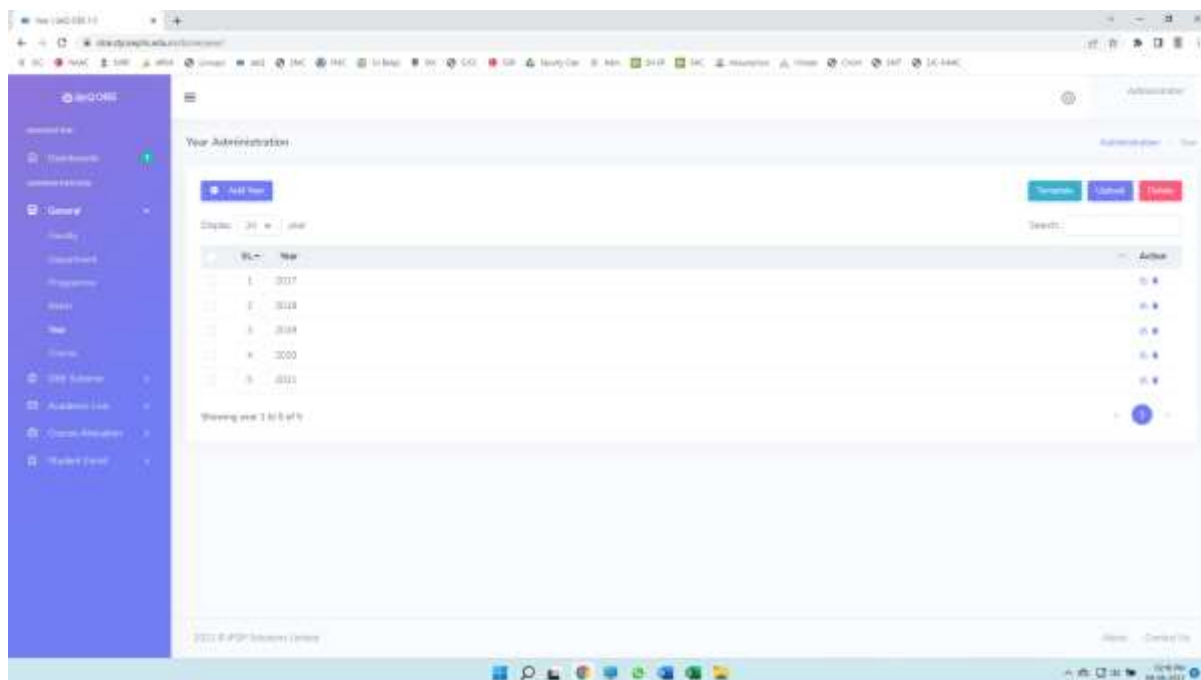
The 'programs' option in the 'general' setting of the administrator dashboard works similarly to the previous 'faculty' and 'department' options where additional programs can be added or existing programs can be edited and assigned to the respective departments. The duration of the course program and the grading scale can also be viewed in this section.



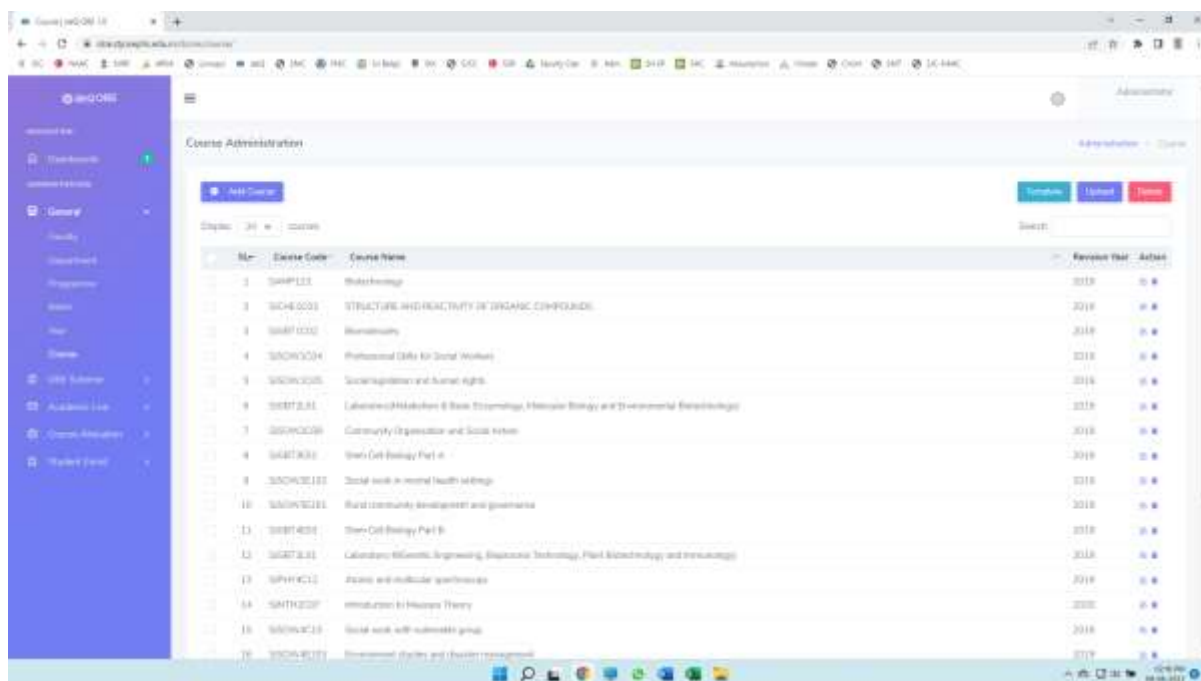
The batches in this section are created according to the admission year. The analysis of the PO attained of the students enrolled in the course programs according to the departments are listed under these batches and their other primary details can be accessed and edited from this domain.



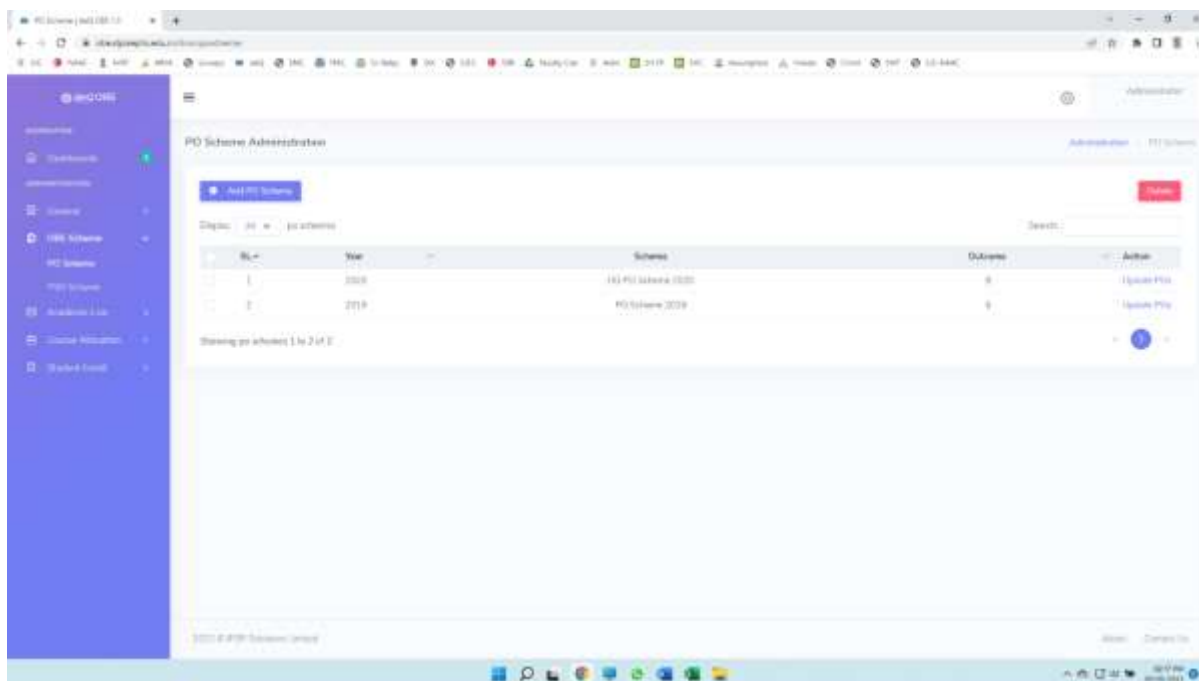
This area provides the details according to the year of admission. The administrator can gain access to year wise course attainment details of the batches from this section. The necessary details can be added or edited through this page through the edit options in the right.



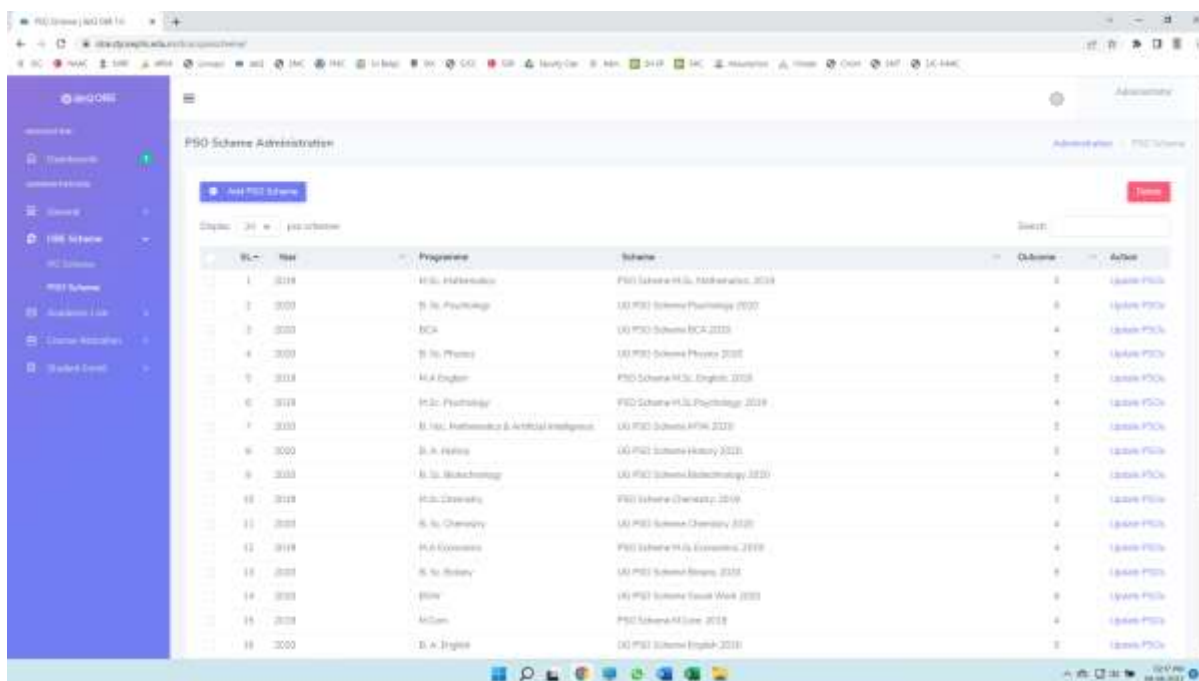
The course administration module helps the administrator to add all the courses run in the institution as options for the students. The administrator can find the year of revision and the course code assigned to the respective courses in this section. Every course is linked to a program and every program is linked a department



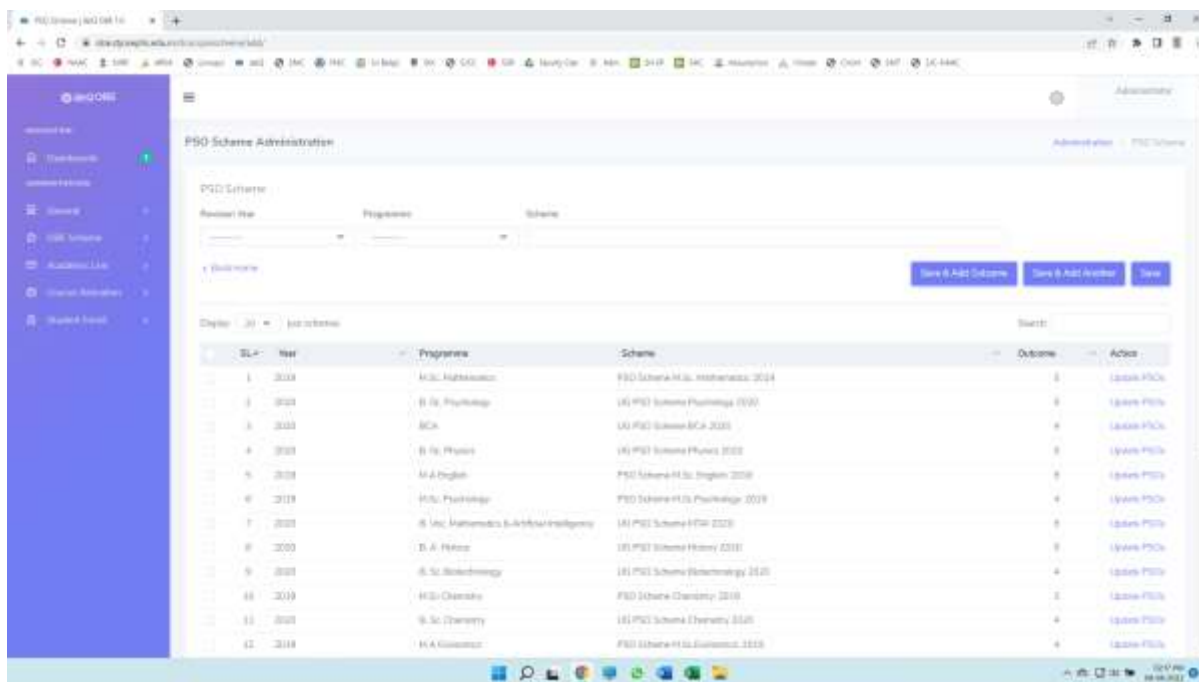
The administrator can add the PO of the programs of every year in 'PO scheme' found under the 'OBE Scheme' in the left control panel of the administrator dashboard.



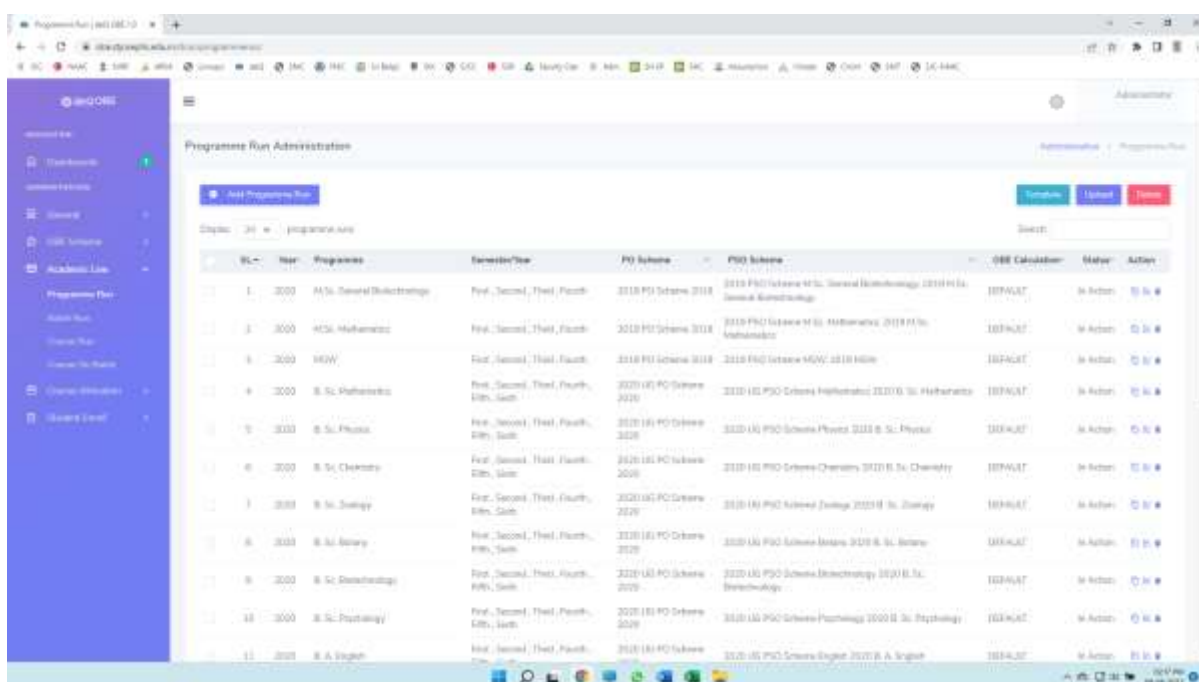
The PSOs of the programs can be added by the administrator in the 'PSO Scheme' under the 'OBE Scheme' that is located in the admin dashboard towards the left-hand side of the page.



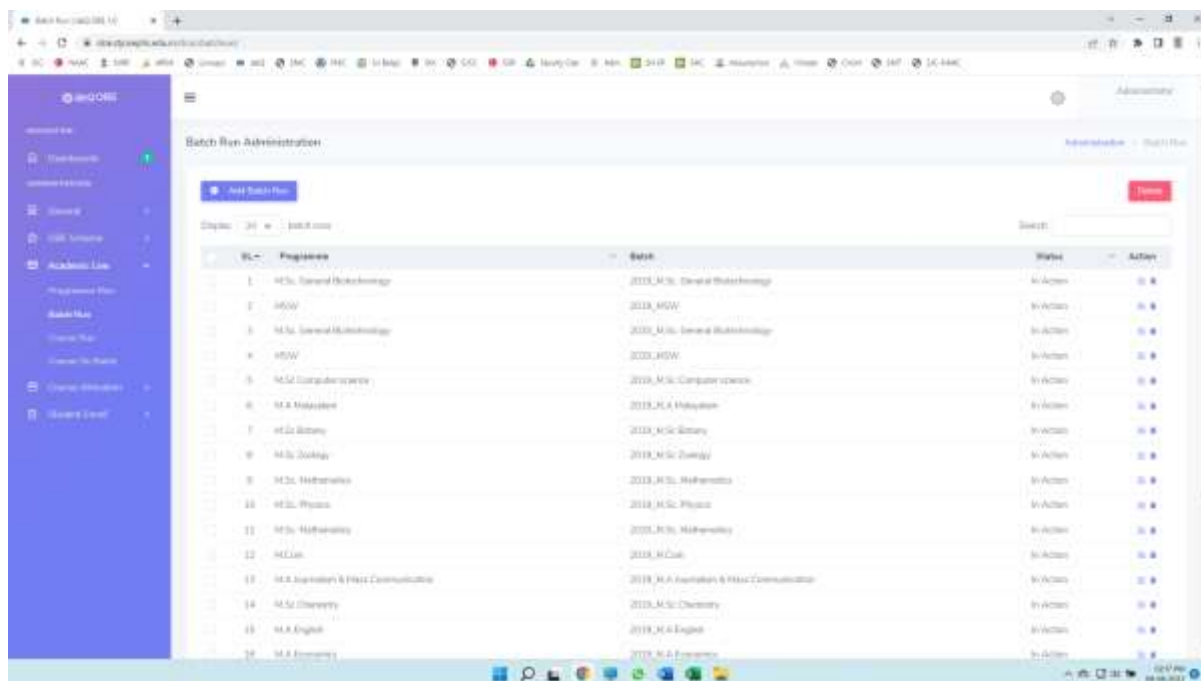
The PSO scheme administration feature provides the administrator the facility to add the year of revision and the program in which the revision was implemented. There is space allotted to describe the outcome scheme assigned to the specific course program. The outcome can be individually added or in bulk using the template option.



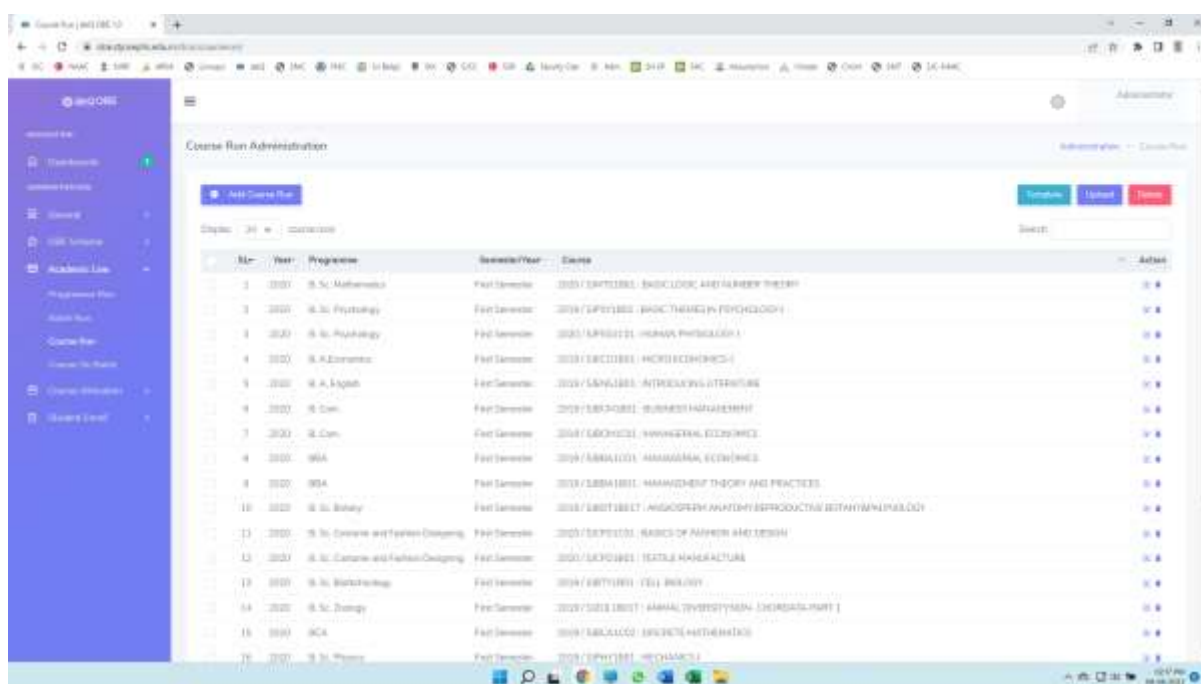
In the 'Academic Live' option found under the administration dashboard, this section gives an idea of the number of programs run in the institution and helps the administrator to update the live programs. This panel also helps the administrator to view the outcomes of the programs running in the institution.



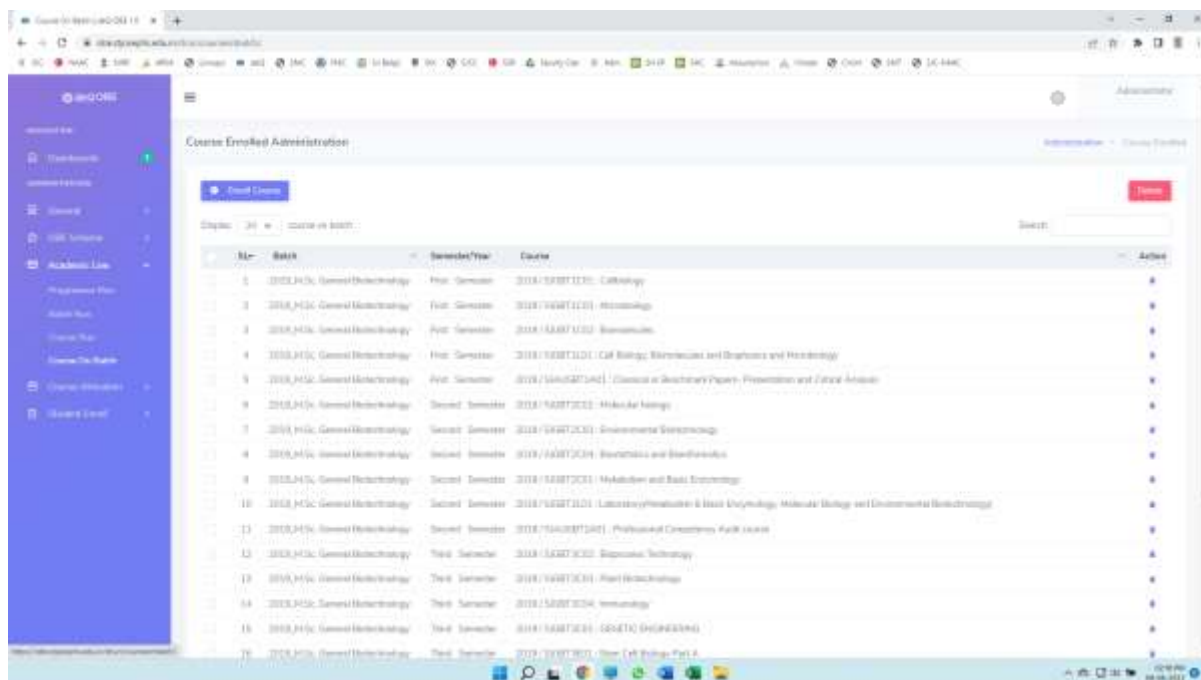
The feature is also available in the batch run administration where the outcomes can be viewed and evaluated based on the performance of the batches.



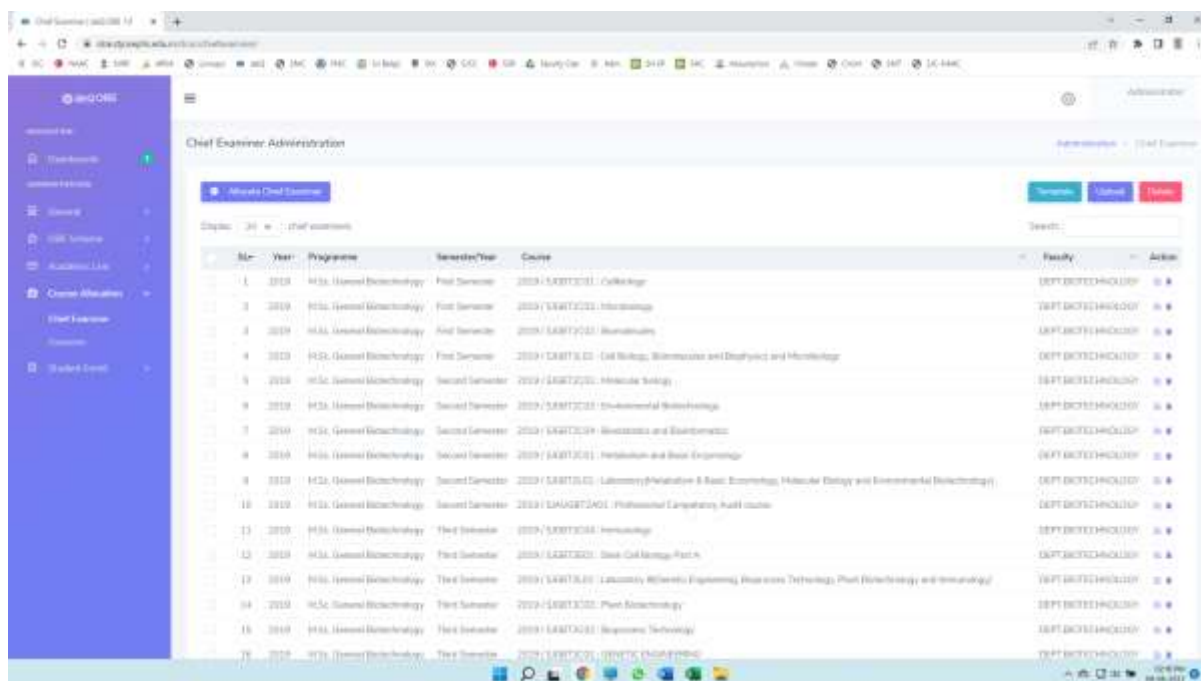
The course run administration enables the administrative user to view and analyse the outcomes based on the working of the course.



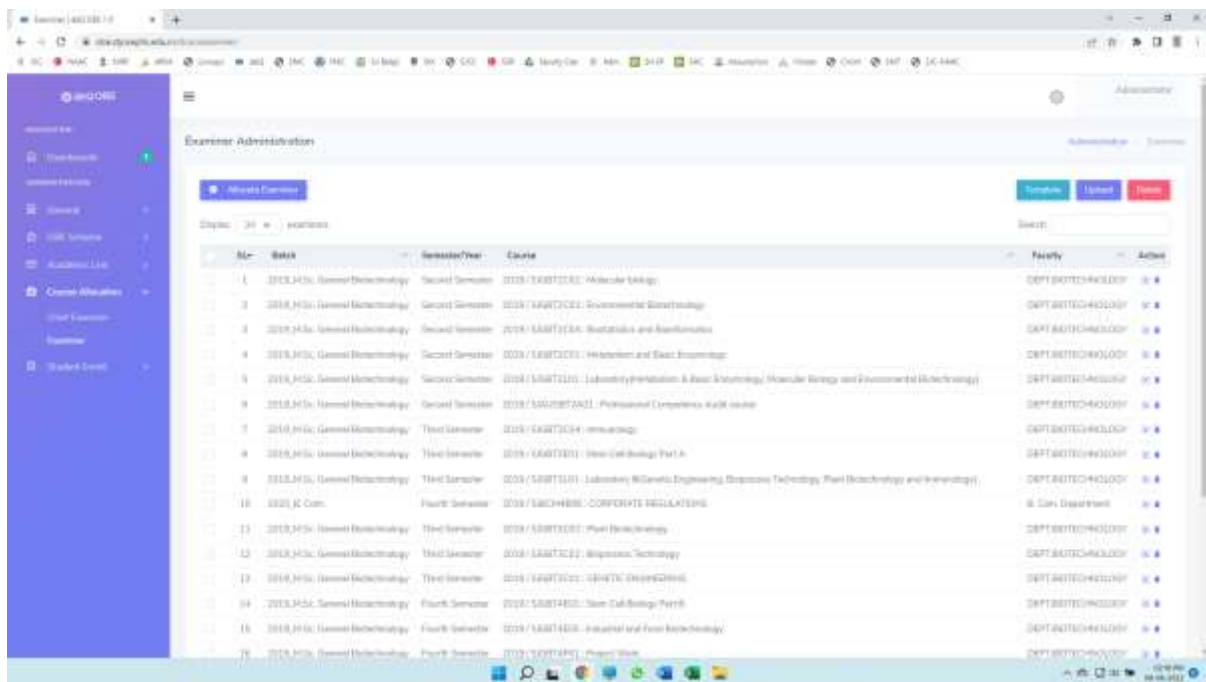
The course enrolled administration provides details of the students enrolled in different courses based on the semester and year of enrolment. Specific details of the course can be located through the search option on the top right side of the page.



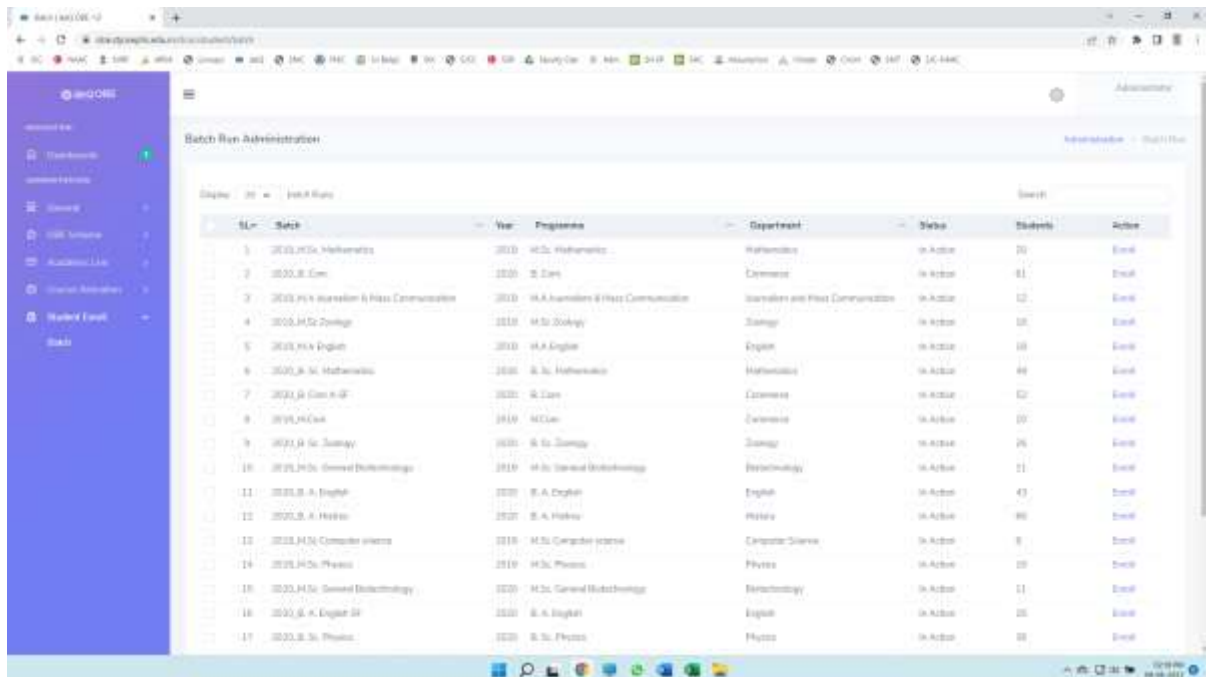
The left control panel of the administrator has the feature of 'course allocation' that further has the options of monitoring and supervising the functions of the chief examiner and examiner. The chief examiner can generate reports student-wise, batch-wise and program-wise for clear analysis of OBE implementation



The examiner option is an administrative module that aids in course assignment and entering of the external examination marks.

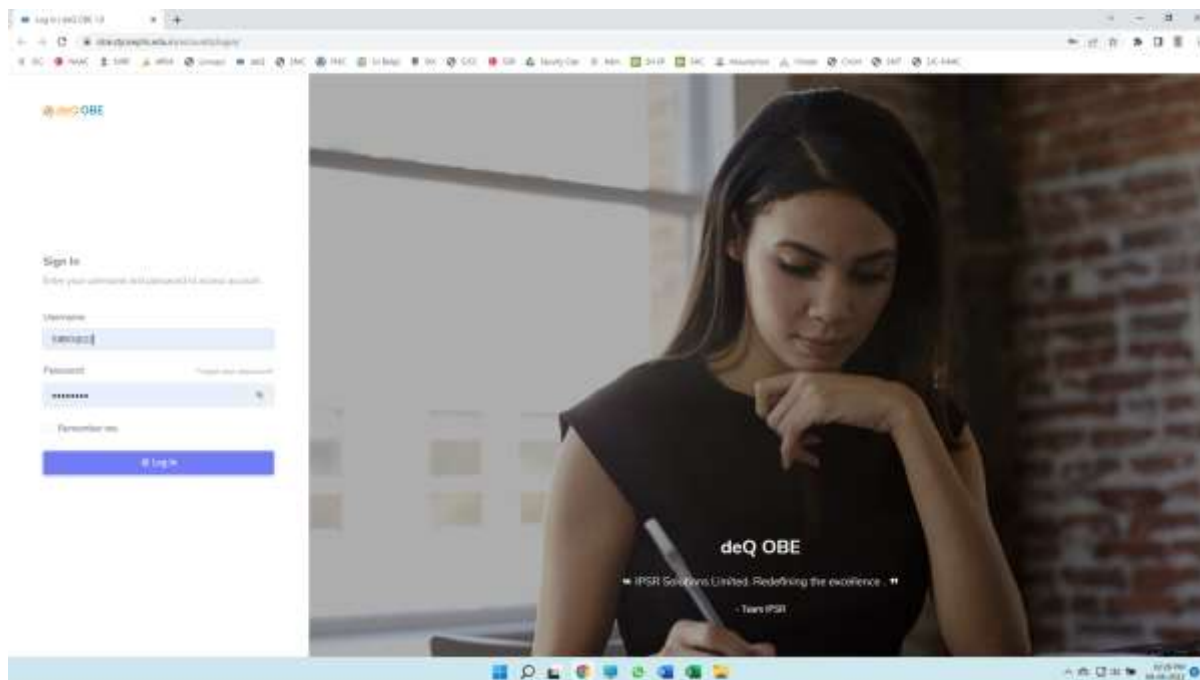


The 'student enroll' option on the left side panel helps in entering the student details based on the batch, year and program enrolled as enrolled in the institution. This automatically shares the details of the student with the concerned department HoD and Faculty users. This ensures that the users are interconnected and the communicative lines are kept open.

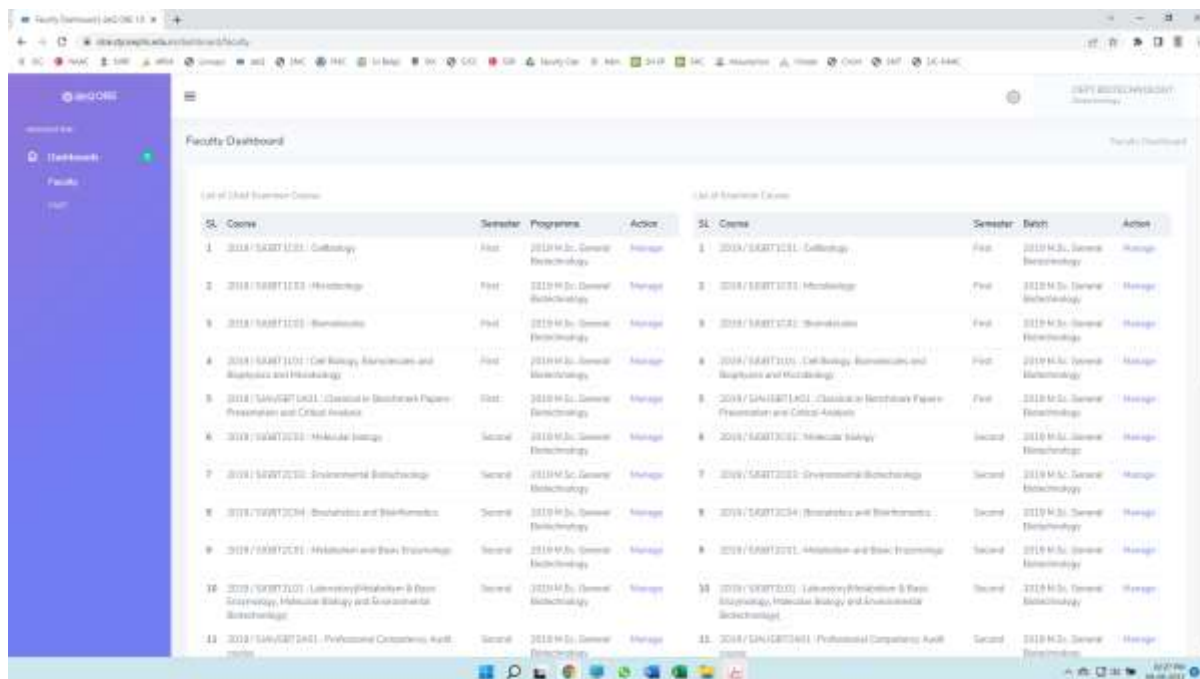


4.2 HoD controlling unit in deQ:OBE

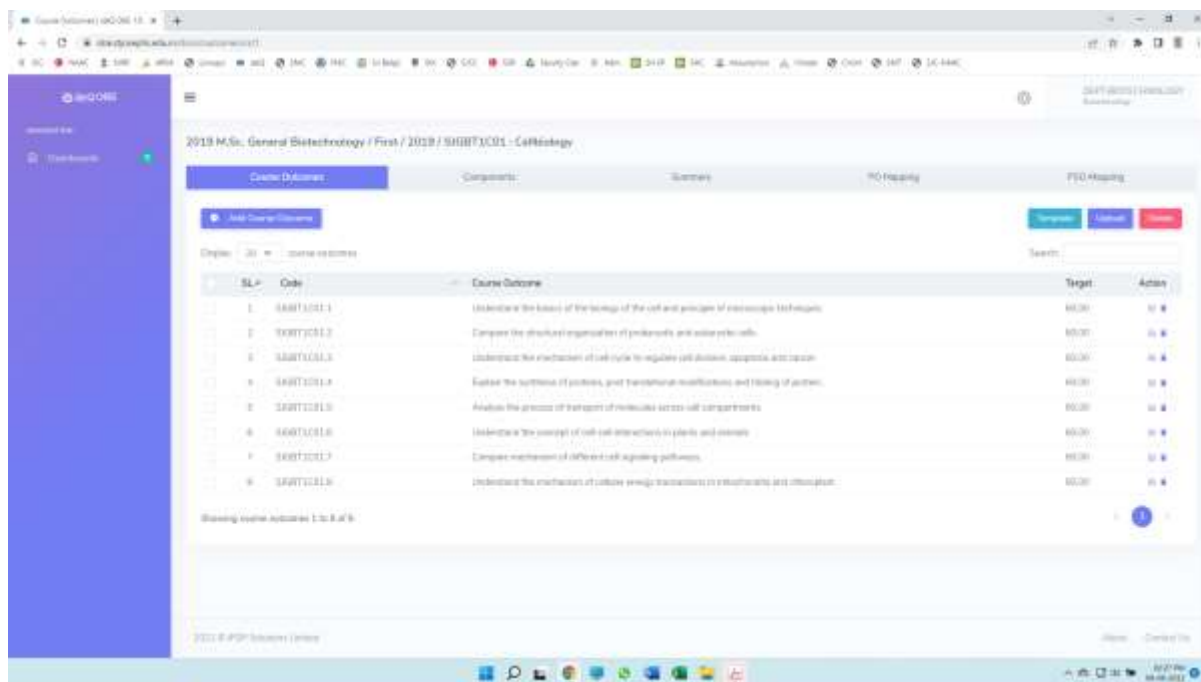
deQ:OBE software can be accessed through its official website obe.stjosephs.edu.in. The HoDs of the departments can gain access to this site with the unique user ID and password assigned to them from the administration.



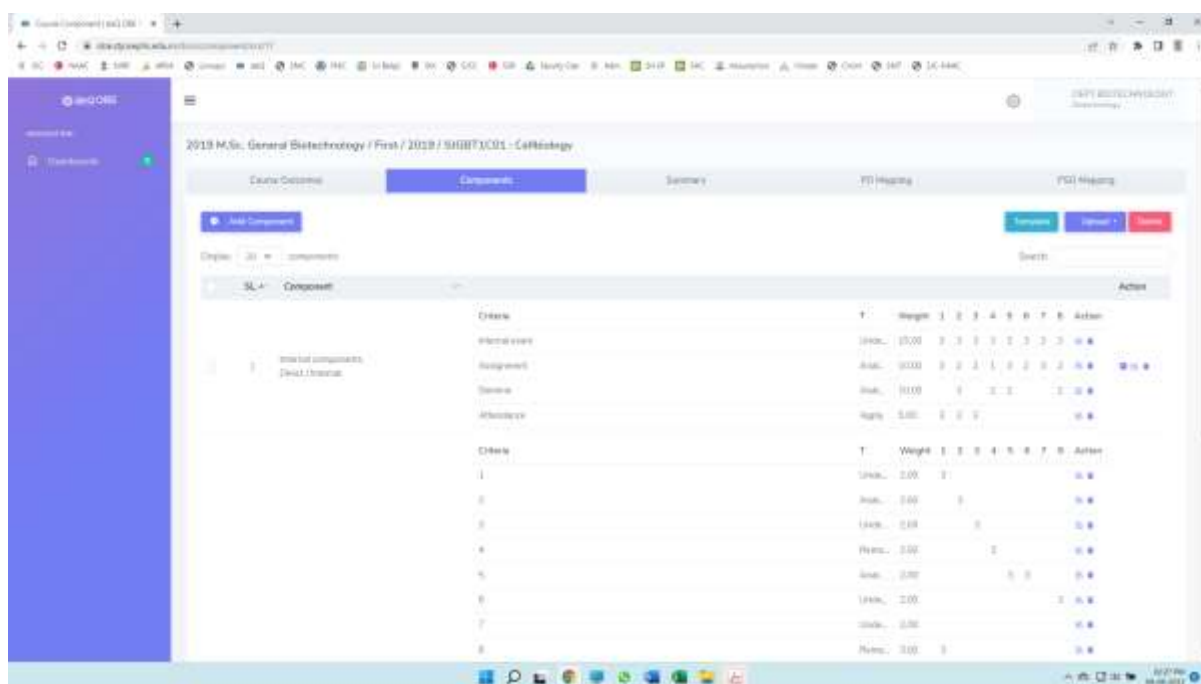
The initial login page has a side panel that contains two controlling nodes in the dashboard namely: Faculty and HoD. The faculty unit has the controls over adding and editing the course details and the program details through the 'manage' option in the 'action' section.



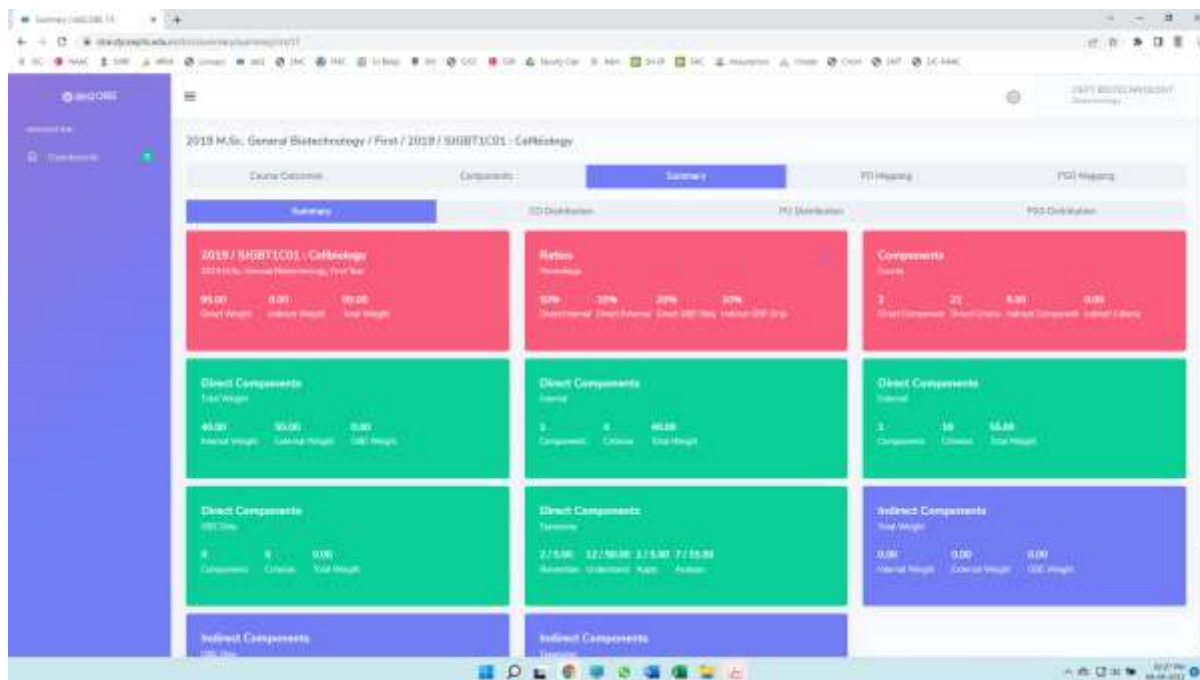
For every course program, the HoD has the capacity to assess the target attainment of the course outcomes in each course. Along with analysing the attainment of the outcomes, the HoD can edit/add the outcomes for each program with the options of 'Template' for bulk entry and 'Add course outcome' for single entry. After entering the course outcomes, the HoD has to click on the 'upload' option for publishing the details entered.



This section enables the HoD to enter the internal and external components and also specifically assign weightage to the the direct and indirect internal and external components. The components can also be added as a single entry or via 'template' as bulk entry.



The summary option gives a comprehensible summary of the batch and contains information about the ratios of the direct and indirect components and the comparative study of the different components entered for the batch.

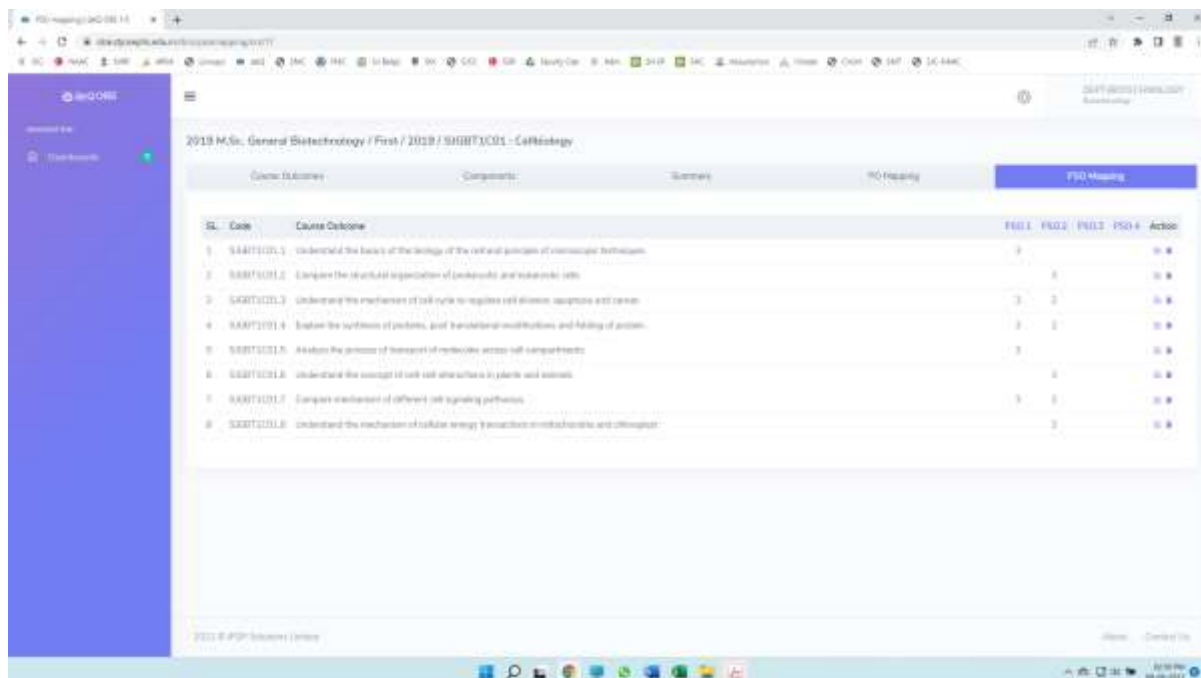


The option of 'PO Mapping' in the top banner allows the HoD to assign different POs to the course outcomes of the course through the 'Action' option available at the right.

The screenshot shows the 'PO Mapping' page in the iQMS system. The course details are 2019 M.Sc. General Biotechnology / First / 2019 / SBBT1001 - Cell Biology. The page displays a table of course outcomes and their mapping to Program Outcomes (POs).

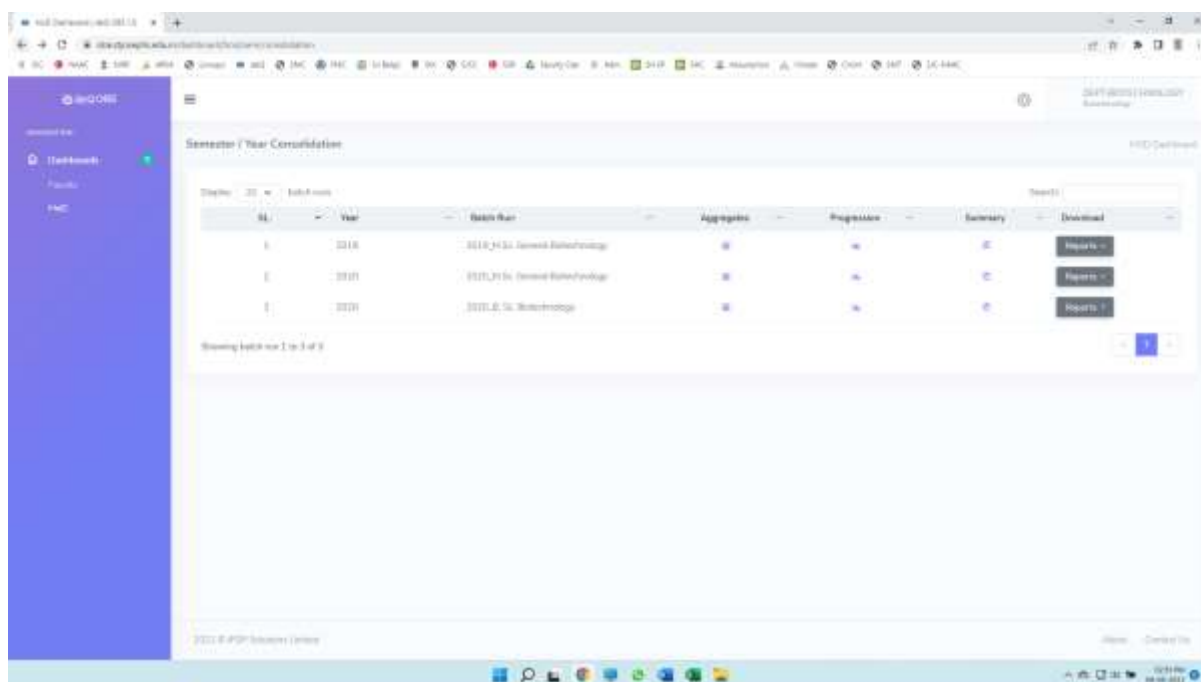
Sl. Code	Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	Action
1	SBBT1001.1 Understand the basis of the biology of the cellular processes of eukaryotic organisms.	0	0	0	0	0	0	✖
2	SBBT1001.2 Compare the structural organization of prokaryotic and eukaryotic cells.	0	0	0	0	0	0	✖
3	SBBT1001.3 Understand the mechanism of cell cycle to regulate cell division, apoptosis and cancer.	0	0	0	0	0	0	✖
4	SBBT1001.4 Explain the synthesis of proteins, post-translational modifications and folding of protein.	0	0	0	0	0	0	✖
5	SBBT1001.5 Analyze the process of transport of molecules across cell compartments.	0	0	0	0	0	0	✖
6	SBBT1001.6 Understand the concept of cell-cell interaction in plants and animals.	0	0	0	0	0	0	✖
7	SBBT1001.7 Compare mechanism of different cell signaling pathways.	0	0	0	0	0	0	✖
8	SBBT1001.8 Understand the mechanism of cellular energy transaction in mitochondria and chloroplast.	0	0	0	0	0	0	✖

The PSOs can also be allocated to different PO and CO of the course in this section in a similar manner.



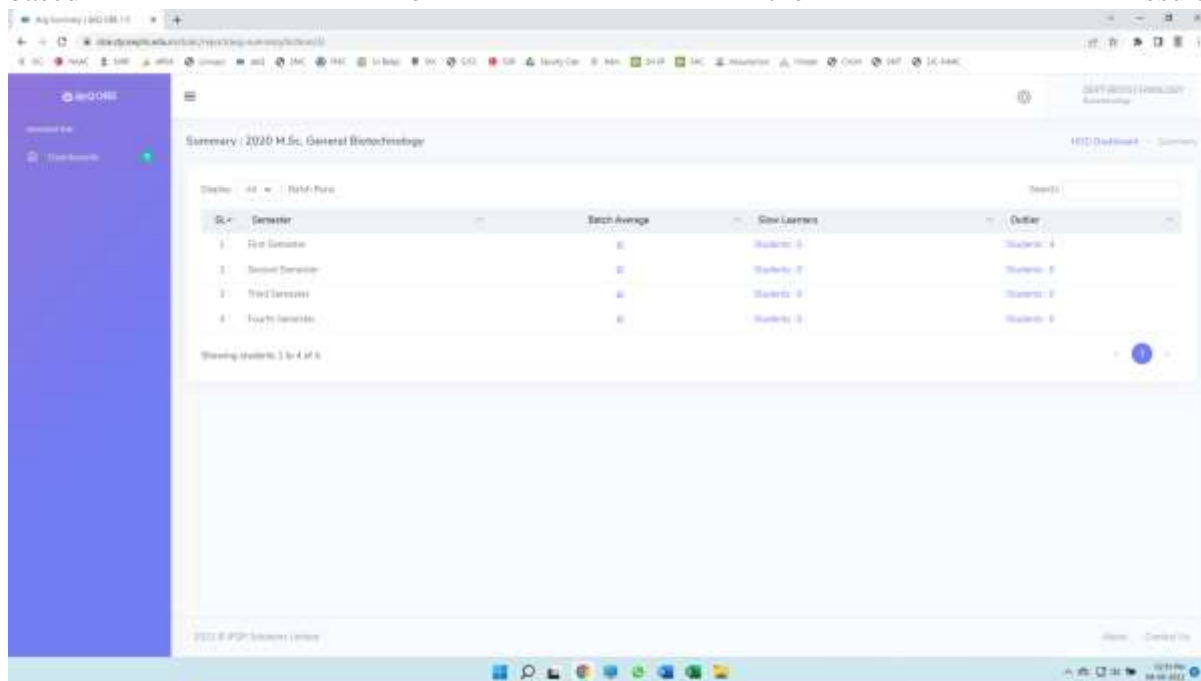
SL	Code	Course Outcome	PO1	PO2	PO3	PO4	Action
1	SSBT102L1	Understand the basis of the biology of the cultured microbes of microscopic techniques.	3				
2	SSBT102L2	Compare the structural organization of prokaryotic and eukaryotic cells.		3			
3	SSBT102L3	Understand the mechanisms of cell cycle in regular cell division, apoptosis and cancer.	3	3			
4	SSBT102L4	Explain the synthesis of proteins, post-translational modifications and folding of proteins.	3	3			
5	SSBT102L5	Analyze the process of transport of molecules across cell compartments.	3				
6	SSBT102L6	Understand the concept of cell cell structures in plants and animals.		3			
7	SSBT102L7	Compare mechanism of different cell signaling pathways.	3	3			
8	SSBT102L8	Understand the mechanism of cellular energy transactions in mitochondria and chloroplast.		3			

The semester/ year wise consolidated reports can also be generated through the faculty user node in the dashboard. The reports can be analysed to identify the aggregates and the student progression. The summary of the findings can be viewed and downloaded.

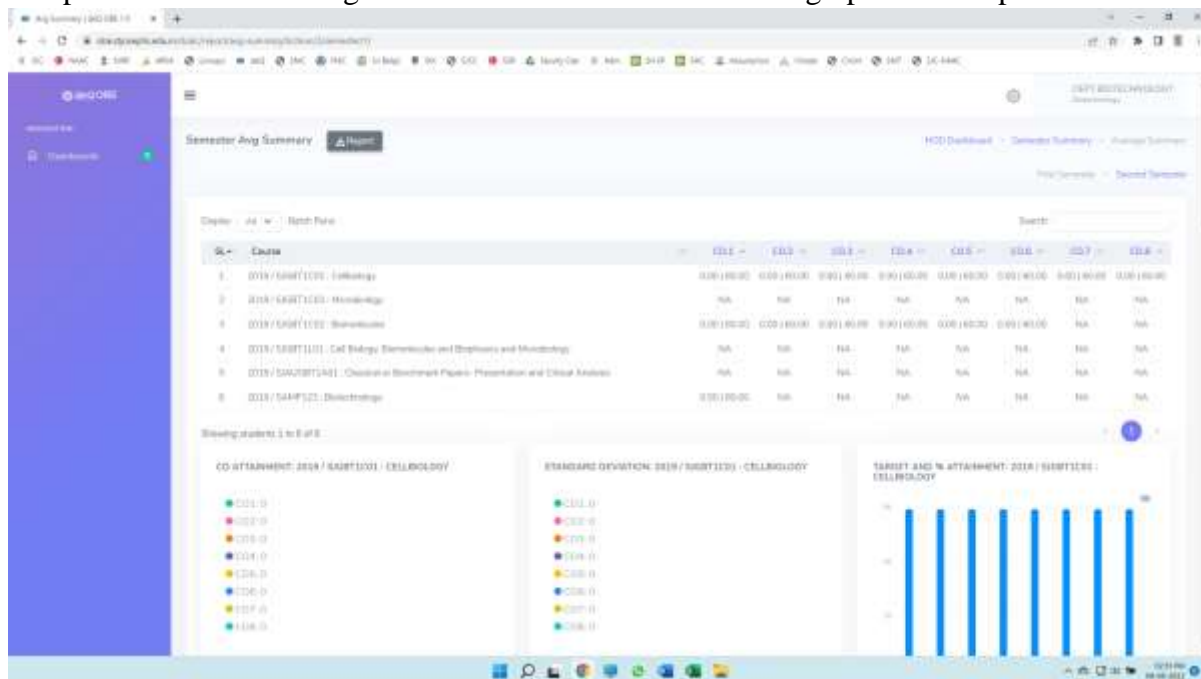


SL	Year	Batch Name	Aggregate	Progression	Summary	Download
6	2018	2018_215a General Biotechnology				Reports
7	2019	2019_215a General Biotechnology				Reports
8	2019	2019_215a Biotechnology				Reports

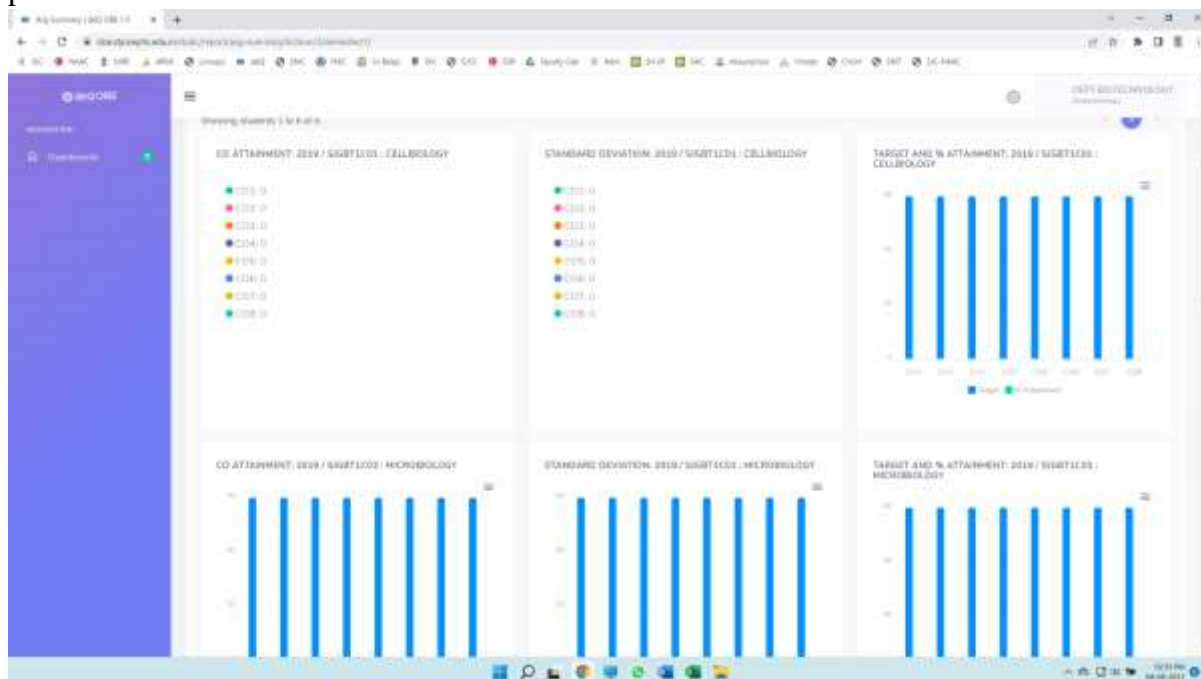
The following screenshot gives a picture of the summary of all the semesters of a course program. The HoD has the option of viewing the batch average and identify the slow learners based on the result.



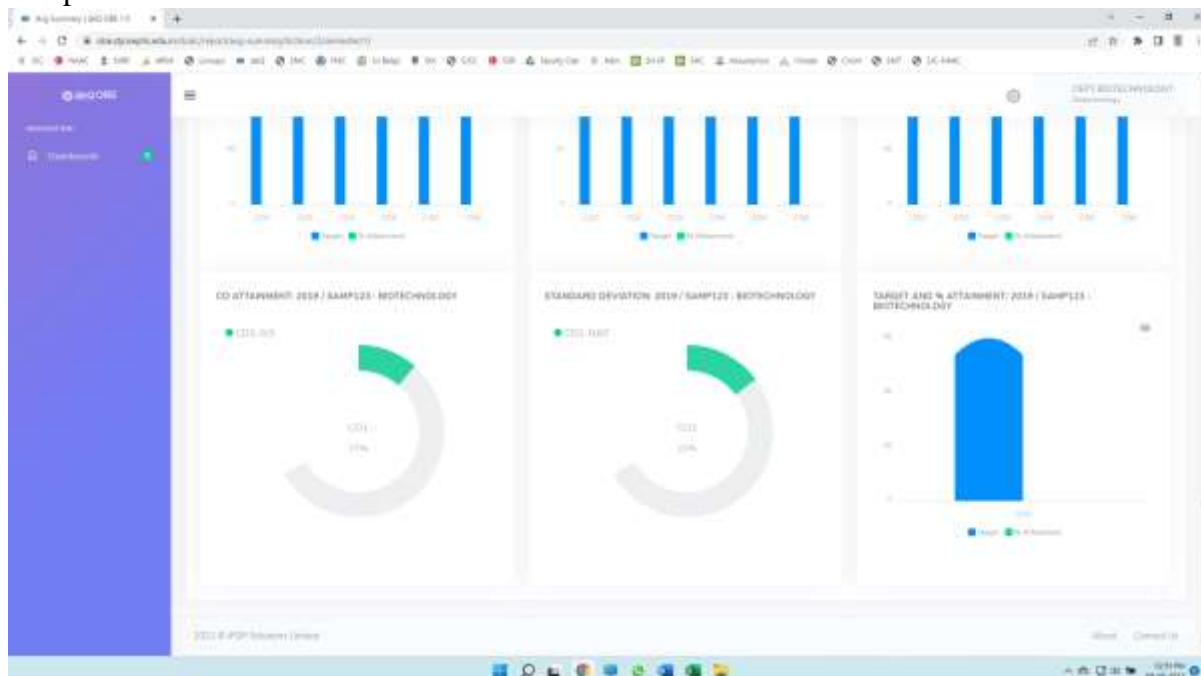
The semester average summary report can be generated by clicking on the 'report' option in the top of the page. The attainment of CO and the performance of the batch can be comprehended in digital data as well as graphical representation.



The software also helps the HoD to easily calculate the CO attainment, standard deviation in the batch, the target set and the level of attainment for getting a clear picture of the batch performance.



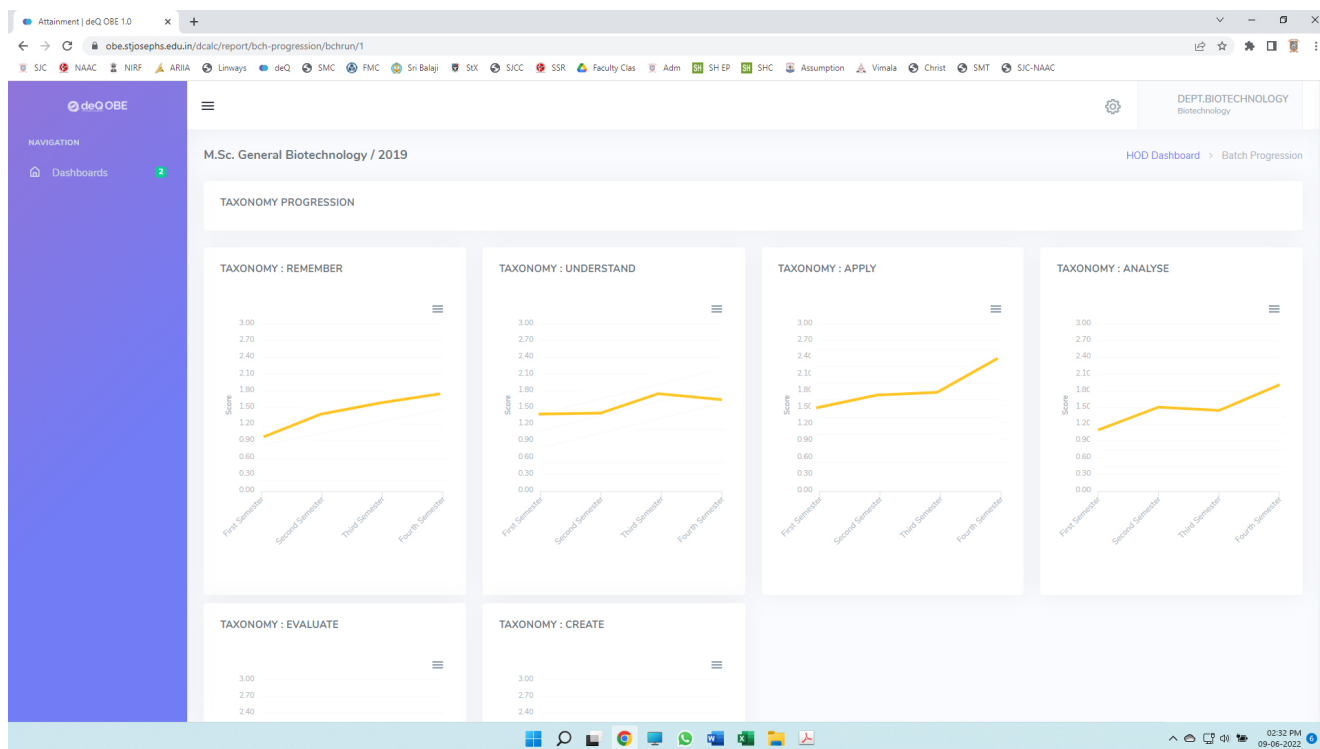
The attainment of CO is also made available in the form of graphs and pie charts for easy comprehension.



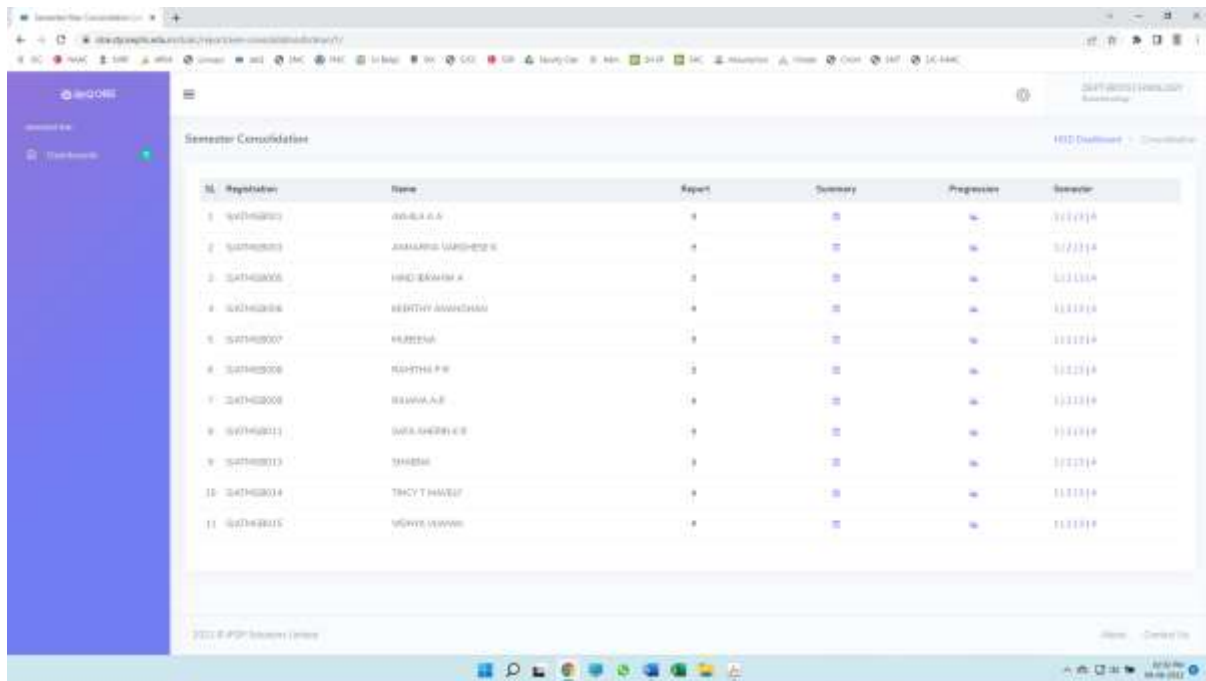
The average summary report of the semester is also available in the pdf format that can be downloaded or printed as per convenience.

Sl.	Course	CO-1	CO-2	CO-3	CO-4	CO-5	CO-6	CO-7	CO-8
1	2019 / SJGBT1C01 : Cell Biology	0.00 00.00	0.00 00.00	0.00 00.00	0.00 00.00	0.00 00.00	0.00 00.00	0.00 00.00	0.00 00.00
2	2019 / SJGBT1C03 : Microbiology	NA	NA	NA	NA	NA	NA	NA	NA
3	2019 / SJGBT1C02 : Biomolecules	0.00 00.00	0.00 00.00	0.00 00.00	0.00 00.00	0.00 00.00	0.00 00.00	NA	NA
4	2019 / SJGBT1L01 : Cell Biology, Biomolecules and Biophysics and Microbiology	NA	NA	NA	NA	NA	NA	NA	NA
5	2019 / SJAJGBT1A01 : Classical or Benchmark Papers: Presentation and Critical Analysis	NA	NA	NA	NA	NA	NA	NA	NA
6	2019 / SJAMP123 : Biotechnology	0.50 00.00	NA	NA	NA	NA	NA	NA	NA

The graphical representation of every taxonomical progression in respect to the Blooms Taxonomy of the batch is possible under the category of 'batch progression'.



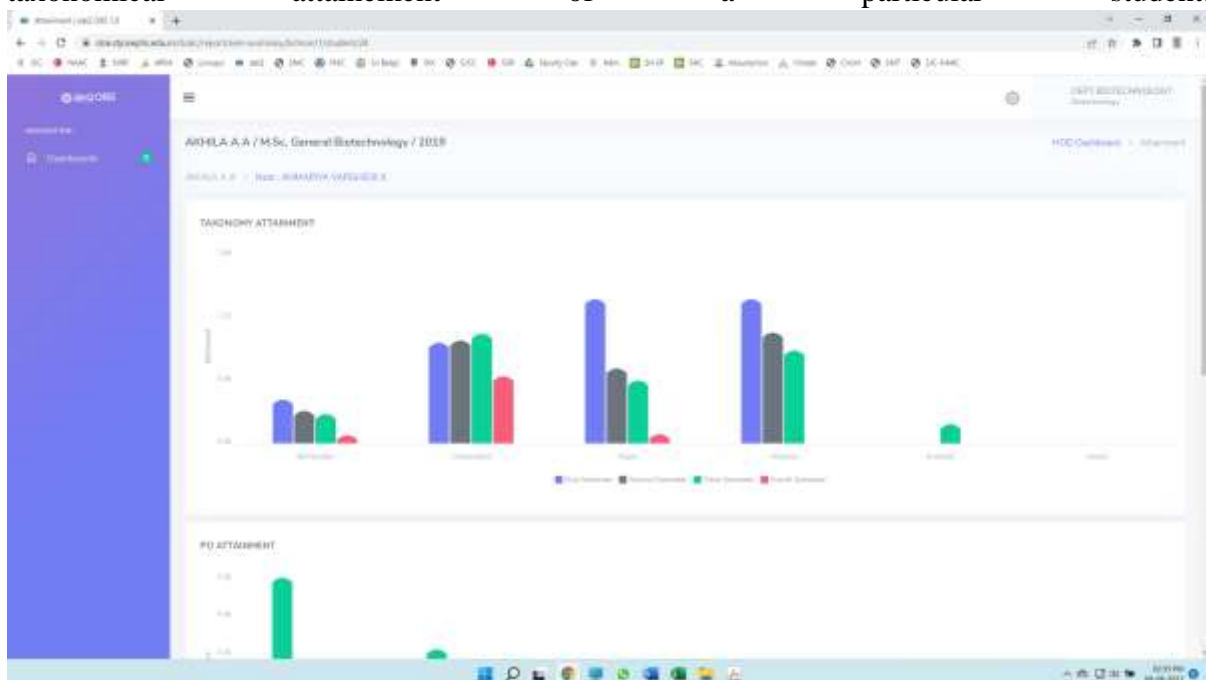
The semester consolidation option in the HoD dashboard provides the individual report of the students in every semester. This can help the faculty or the Hod to evaluate the progress of the student in during the course duration. These reports can be viewed as well as downloaded and printed in the pdf format.



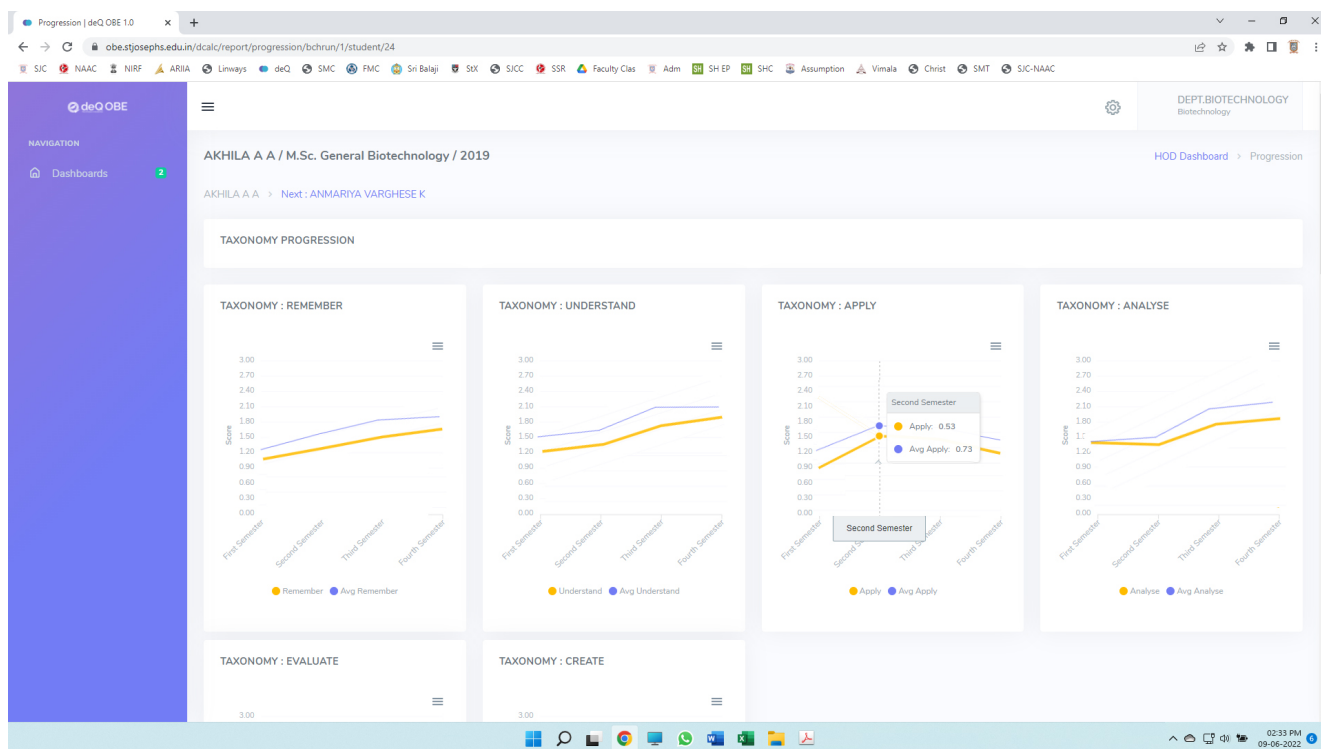
The screenshot shows a web application interface for 'Semester Consolidation'. It features a table with columns for S.No, Regd Number, Name, Report, Summary, Progression, and Semester. The table lists 11 students with their respective details.

S.No	Regd Number	Name	Report	Summary	Progression	Semester
1	1927H0201	ARHILA.A.A	+		+	11/11/18
2	1927H0202	ARHANA VARGHESE	+		+	11/11/18
3	1927H0203	HRD ERWIN A	+		+	11/11/18
4	1927H0204	REETHY ANANDHAN	+		+	11/11/18
5	1927H0207	MUBINA	+		+	11/11/18
6	1927H0208	RASTHI P R	+		+	11/11/18
7	1927H0209	REKHALE	+		+	11/11/18
8	1927H0211	SARA HERICE	+		+	11/11/18
9	1927H0213	SHRESA	+		+	11/11/18
10	1927H0214	THOYTHASEL	+		+	11/11/18
11	1927H0215	VENNY VYWAH	+		+	11/11/18

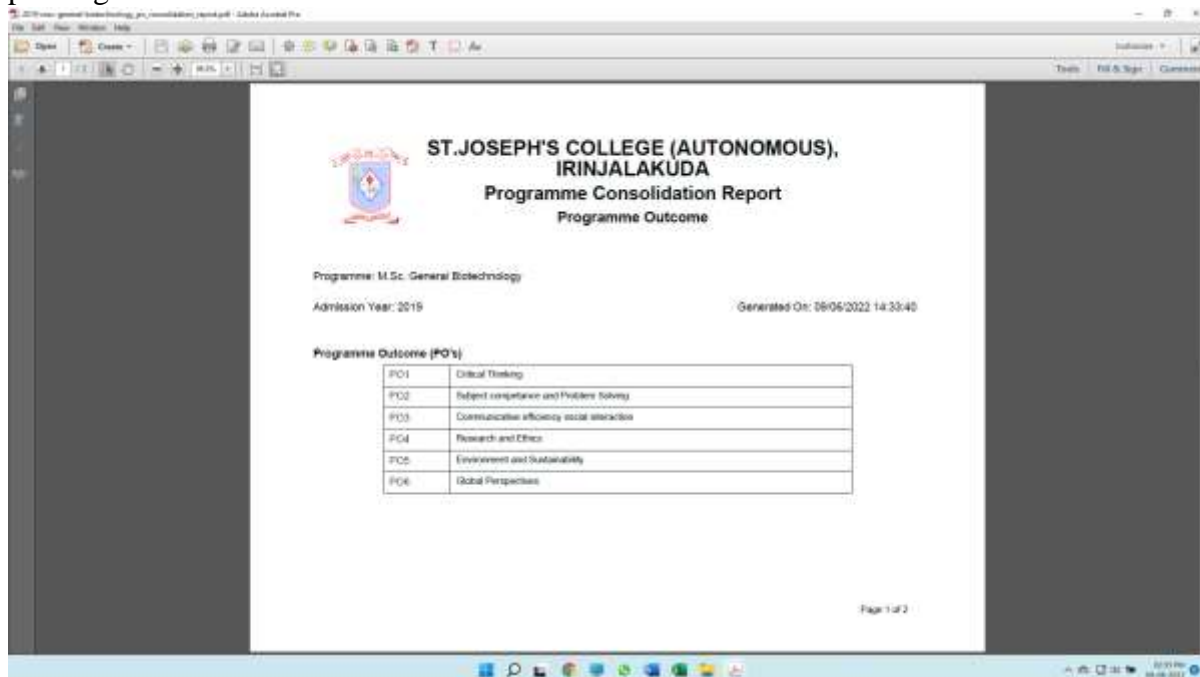
The individual student progression reports are also graphical represented in the form of bar graphs that helps to easily locate the area that requires extra attention according to the taxonomical categorization. The next student in line is also visible while viewing the taxonomical attainment of a particular student.



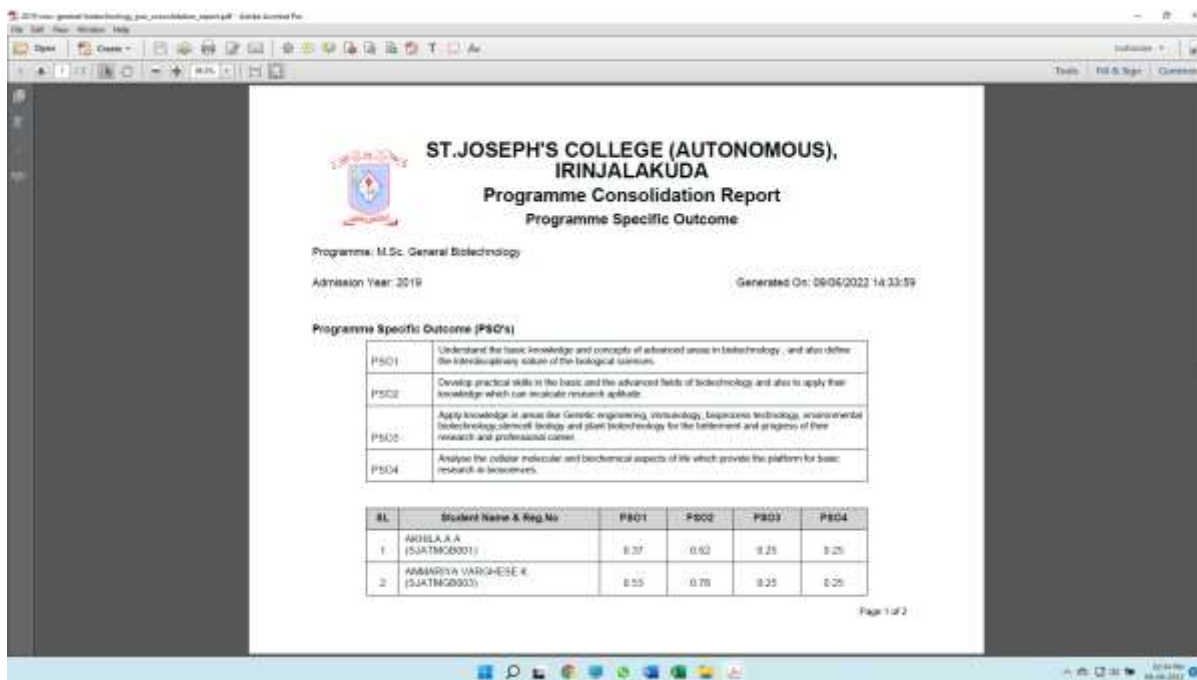
The student attainment as per the Blooms Taxonomy is represented through line graphs to represent the pace of learning and the easy analysis of the path of progression



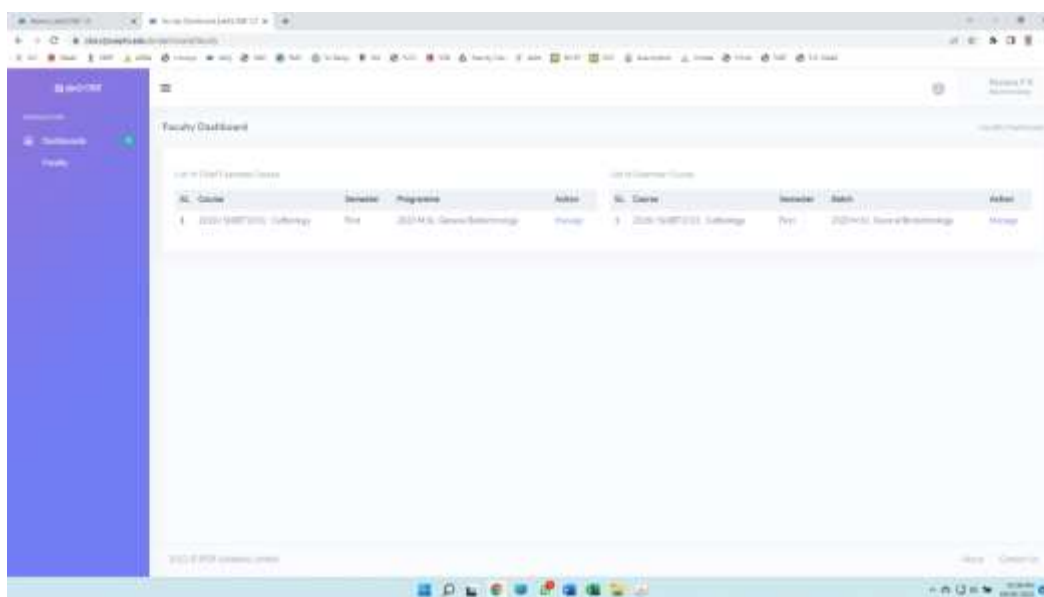
The program consolidated report can be generated in the pdf format for downloading and printing.



The attainment levels of the program specific outcomes of the students in the batch can also be generated from the HoD portal in the pdf format with the download option.



4.3 Faculty dashboard



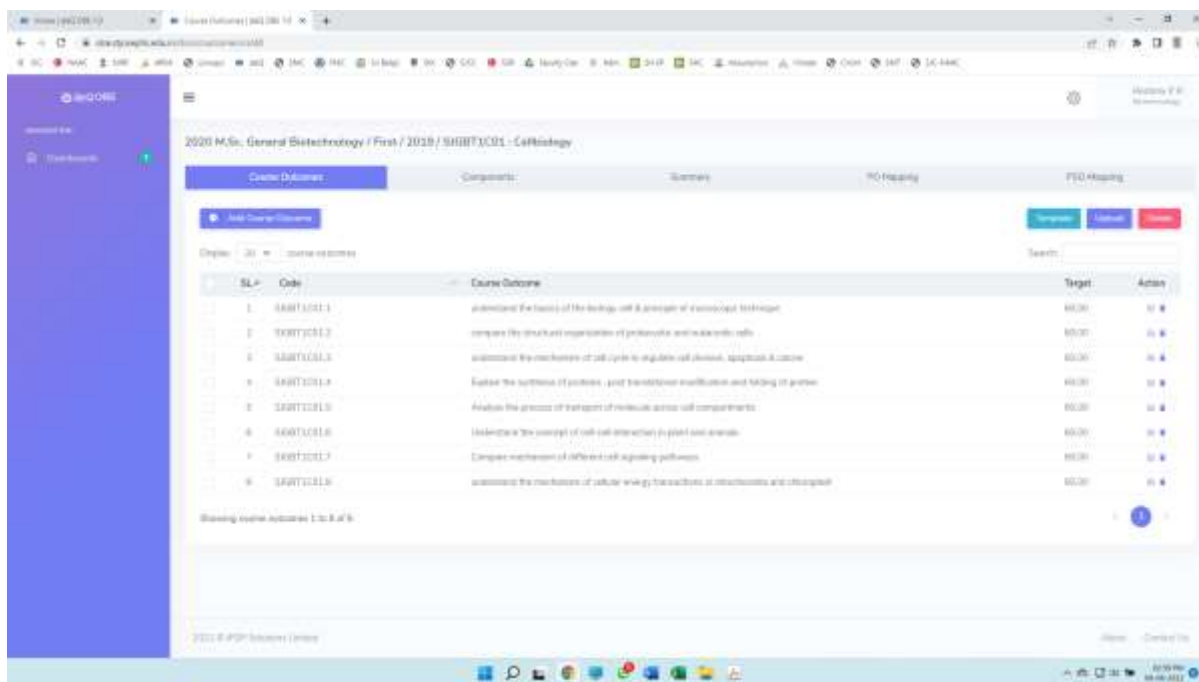
This screenshot depicts the home page of a faculty after logging in the official deQ:OBE site with the assigned username and password. It contains two sections that denote the roles played by the faculty:

- List of Chief Examiner Course
- List of Examiner course

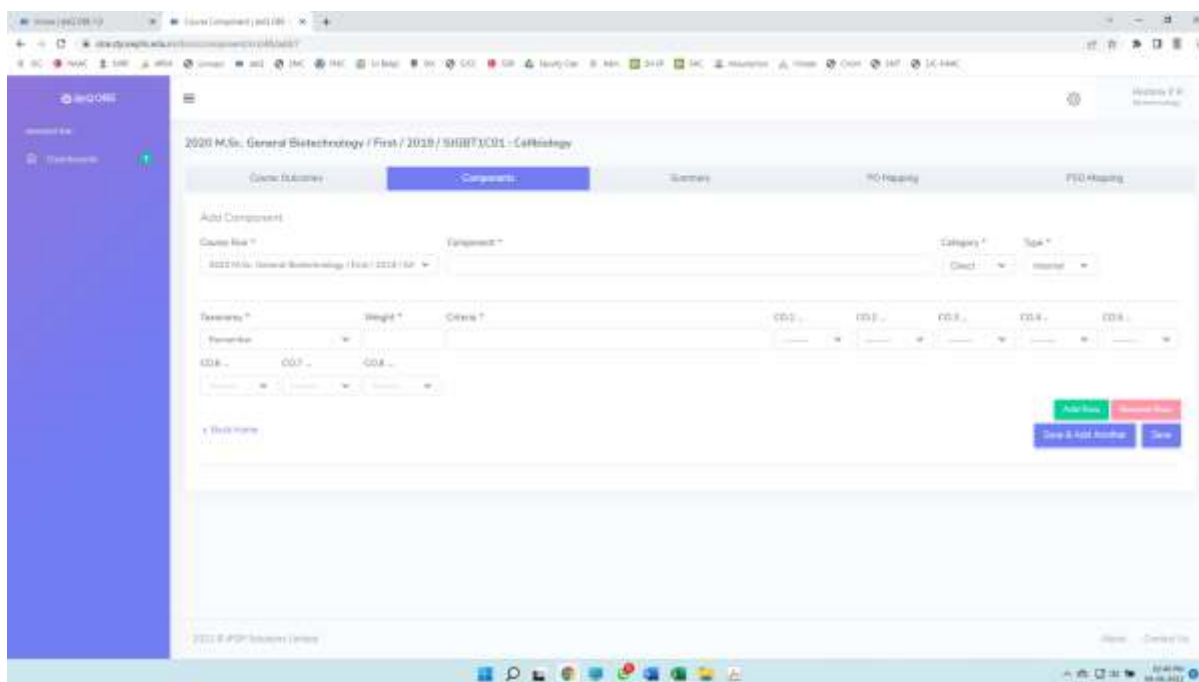
The faculty may be assigned with one or both the roles of Examiner and Chief Examiner that can be viewed from the faculty login page. The settings for the course program can be handled by the faculty through the 'manage' option under the 'Actions' column.

The 'Manage' option provides the faculty with the facility of adding/editing the course outcomes of the program. These can be added as single entries with the 'Add course outcome'

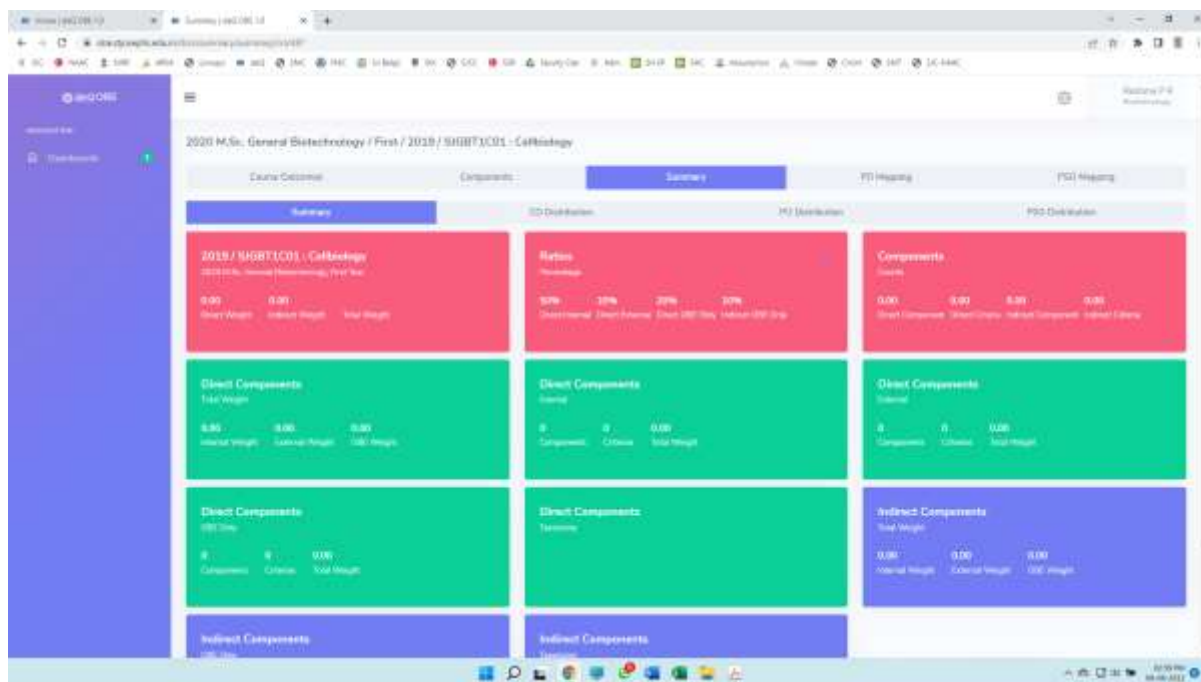
in the left corner or as bulk entries by clicking on ‘template’. The ‘upload’ option enables the faculty to upload outcome files already created by them in their system in the prescribed format. The ‘delete’ option enables the faculty to remove faulty entries and substitute them with the correct data.



The ‘components’ option in the ‘manage’ feature of the faculty dashboard enables the teacher to add/edit the details of the external and internal components and assign the required weightage and taxonomy by filling up this section. The entered components can also be mapped with the respective Cos of the course.



The 'summary' option enables the teacher to view measurements of the direct and indirect components through pictorial representation of the components. The ratios and the average can also be viewed and calculated through these boxes.

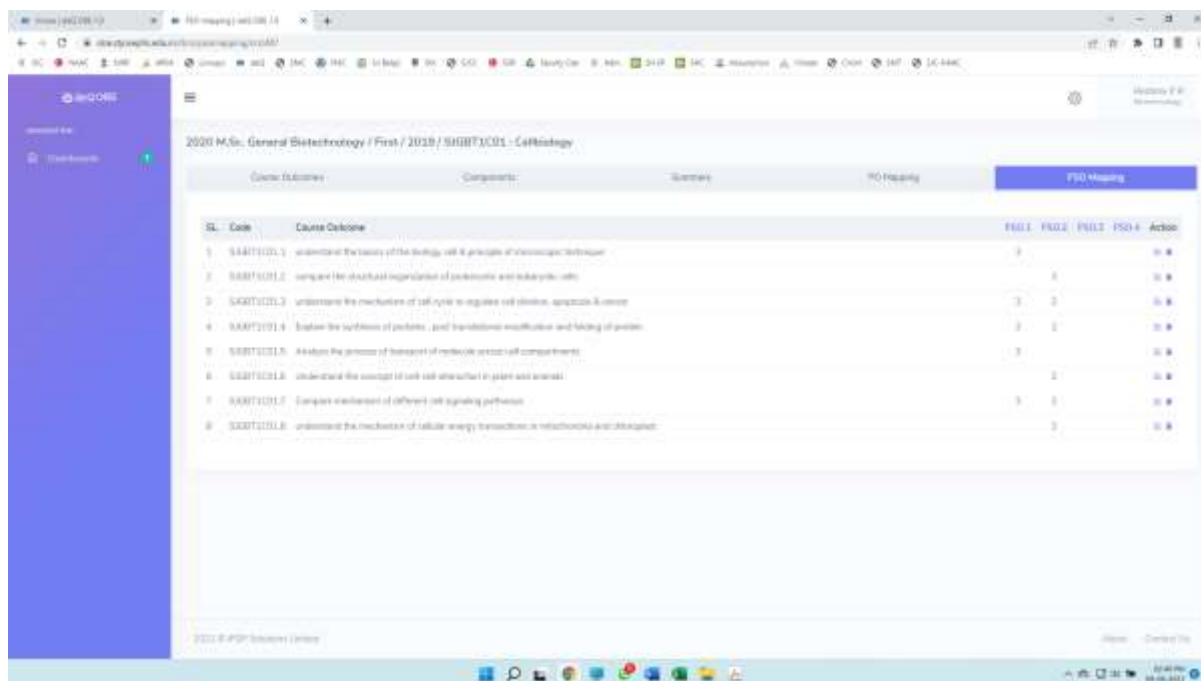


The 'PO Mapping' in the faculty dashboard enables the concerned faculty to map the PO with the respective CO of the course program.

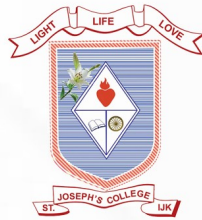
The screenshot shows the 'PO Mapping' view of the faculty dashboard. The course is '2020 M.Sc. General Biotechnology / First / 2020 / SBBT1CO1 - Cell Biology'. The dashboard displays a table mapping Course Outcomes (CO) to Program Outcomes (PO).

Sl. Code	Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	Action
1	SAAT1101.1	1						✖
2	SBBT101.2	1						✖
3	SAGT101.3	2						✖
4	SBBT101.4	1						✖
5	SBBT101.5	1						✖
6	SBBT101.6	1						✖
7	SBBT101.7	1						✖
8	SAGT101.8	1			1			✖

The faculty also have the facility to categorise the PSO according to the CO of course program through the ‘Manage’ option available from the faculty login homepage.



Through this three-tier controlling units, deQ:OBE software ensures that the communication effectively takes place in all the directions enabling successful implementation of OBE into the curriculum.



St. Joseph's College (Autonomous) Irinjalakuda