



Shri Gajanan Shikshan Sanstha's
**SHRI SANT GAJANAN MAHARAJ COLLEGE OF ENGINEERING
SHEGAON – 444203, DIST. BULDANA (MAHARASHTRA STATE), INDIA**

"Recognized by A.I.C.T.E., New Delhi" Affiliated to Sant Gadge Baba Amravati University, Amravati
"Approved by the D.T.E., M.S. Mumbai"

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Effective Curriculum Planning and Delivery: Process Curriculum Planning

Shri Sant Gajanan Maharaj College of Engineering, Shegaon (SSGMCE), a prestigious institution in the field of engineering, was founded in 1983 by Shri Gajanan Shikshan Sanstha, Shegaon, with a visionary goal: "To impart world-class Engineering and Management education in an environment of spiritual foundation to serve the global society". The college is affiliated to Sant Gadge Baba Amravati University, and as such, it adheres to the university's prescribed syllabus. The university's curriculum for the proposed programs consists of eight semesters for undergraduate (UG) courses and four semesters for postgraduate (PG) courses. SSGMCE's Academic Planner and Calendar are meticulously crafted to align with the university's academic calendar. Additionally, the institute introduces various events designed to foster the holistic development of students. These events include soft skill development programs, training and placement activities, skill development programs, and activities conducted by the Entrepreneurship Development (ED) cell. The Academic Planner and Calendar also include fixed dates for class tests, guest lectures, industrial visits, seminars, Project Progress Monitoring, and technical events.

At the outset of each academic year, the college disseminates the academic calendar and provides guidelines regarding the commencement and conclusion dates of the semester, continuous internal assessment, semester-end examinations, practical examinations, holidays, and other important events. This information is shared with all departments, ensuring uniformity and clarity in scheduling.

Department heads are responsible for distributing the teaching load among faculty members. This distribution takes into account the preferences expressed by faculty members and their competencies. To ensure a seamless curriculum delivery, the allocation of teaching assignments occurs promptly after the conclusion of the previous semester, affording faculty members ample time to prepare for their upcoming courses.

Faculty members are expected to prepare comprehensive lesson plans and lecture plans for their courses. Furthermore, at the commencement of each semester, faculty members submit an academic action plan. This plan outlines key details, including the submission schedule for lesson plans, class test marks, assignment marks, the course portion designated for class tests, the number of scheduled lectures for the course, the types of assignments, and the methodology for conducting and evaluating assignments.

To facilitate documentation and streamline administrative processes, the institute utilizes the Student Information System (SIS) portal. Teaching timetables are developed by each department and are implemented through the SIS portal. Lesson plans are meticulously prepared for each course by the faculty. The syllabus for each course is divided into six units in alignment with the university's teaching scheme. Course objectives and outcomes are clearly defined for every course, in accordance with Program Outcomes (POs).



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In essence, SSGMCE follows a structured and well-organized approach to curriculum planning, emphasizing transparency, faculty competency, and adherence to university guidelines while also fostering a holistic and student-centric educational environment.

Effective Curricular Implementation

The effective implementation of the curriculum at institution is a holistic process that encompasses meticulous preparation of course materials, diverse teaching methodologies, and a wide array of supplementary resources and activities. The goal is to provide students with a comprehensive and dynamic educational experience, equipping them with the knowledge and skills required to excel in their chosen field and stay updated with industry advancements.

Effective curriculum implementation is achieved through a comprehensive approach and includes:

Preparation of Course Materials: Faculty members meticulously prepare a schedule of instruction along with a comprehensive course file. This file includes lecture notes, a detailed course description, a rich tutorial question bank, key definitions and terminology, concept videos, supplementary topics, model question papers, and additional content beyond the prescribed syllabus. This thorough course file is prepared well in advance of the start of classes.

Innovative Teaching and Learning Methods: Faculty members employ various innovative teaching and learning methodologies to create an engaging and effective learning environment for students. These methods range from traditional "chalk and talk" sessions to the integration of information and communication technology (ICT) tools, ensuring a dynamic and diverse classroom experience.

Supplementary Learning Resources: To enrich the learning experience, classroom teaching is complemented by a multitude of supplementary resources and activities. These include:

- Expert Lectures
- Presentations and Seminars
- In-house and Industry-Supported Projects
- Tutorials and Assignments
- Case Studies
- Industry Visits
- Industrial Training
- Internships
- E-Learning Platforms
- NPTEL Lectures
- Guest lectures
- Concept Video Presentations
- Technical Quizzes



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Active Learning Techniques: Faculty members employ active learning techniques, such as case studies, role-playing exercises, group discussions, and quizzes, to engage students in hands-on and collaborative learning experiences. These techniques promote critical thinking and problem-solving skills.

Contents beyond the Curriculum: Faculty members identify and address content that extends beyond the standard curriculum. This ensures that students are exposed to the latest industry trends, innovations, and emerging topics. Acquiring this additional knowledge equips students with a broader understanding of their field

Initiatives for effective Curriculum Delivery

Several initiatives have been implemented to ensure effective curriculum delivery at our institution. These initiatives involve the active participation of key personnel such as the Principal, HOD (Head of Department), Dean, and IQAC (Internal Quality Assurance Cell) coordinator.

Monitoring and Feedback from Students

Monitoring: The Principal, Deans, HODs and IQAC coordinator actively monitor the delivery of the curriculum to ensure it meets the desired standards.

Student Feedback: Regular feedback is collected from students regarding the teaching-learning process. This feedback is invaluable in assessing the effectiveness of curriculum delivery.

Analysis and Action: The feedback received from students is carefully analysed, and corrective actions are taken based on the identified areas of improvement. This helps in continually enhancing the teaching and learning process.

Feedback from Stakeholders

- **Alumni, Employers, and Industry Experts:** Feedback is solicited from alumni, employers, and industry experts to gain insights into the relevance and effectiveness of the curriculum.
- **Faculty Input:** Faculty members also provide feedback on the curriculum, sharing their perspectives on its strengths and weaknesses.
- **Gap Identification:** Analysis of these feedback mechanisms helps identify gaps in the curriculum, both in terms of content and delivery.
- **Corrective Actions:** Once gaps are identified, corrective measures are taken to address them, ensuring that the curriculum remains aligned with industry needs and best practices.



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Comprehensive Assessment Methods

Class Tests and Assignments: To evaluate student learning comprehensively, class tests and assignments are administered. These assessments encompass various components, including tutorials on syllabus points, presentations/seminars on course extensions, projects, experiments, open-book tests, quizzes, group discussions, fieldwork, industrial visits, and report writing.

Rubrics: Well-defined rubrics are used for the evaluation of seminars, lab sessions, and the progress of final-year projects. Rubrics provide clear criteria for assessment, ensuring consistency and transparency in grading.

Identification of Learner Types: Faculty members identify students with varying learning paces, including slow and advanced learners.

Customized Support: Corrective measures are implemented to address the needs of different learner types. Customized support and additional resources are provided as necessary to help students succeed.

Evaluation of CO-PO/PSO Attainment: The achievement of Course Outcomes (CO), Program Outcomes (PO), and Program Specific Outcomes (PSO) is assessed through a comprehensive process that involves the use of various assessment tools

Direct Assessment Tools: These tools are instrumental in evaluating and measuring the attainment of outcomes and include the following components:

- Two class tests
- Assignments
- University examination

Indirect Assessment Tools: Indirect assessment strategies are implemented through the following methods:

Course Exit Survey

Programme Exit Survey

Alumni Survey

Employer Survey

These initiatives collectively ensure that the curriculum is not only effectively delivered but also continuously improved to meet the evolving needs of students, industry, and stakeholders.

Academic Audits

Academic audits provide a structured opportunity for the planned and systematic assessment of a department's teaching and learning processes. This procedure involves verifying and confirming the performance of academic procedures against established standard protocols.



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External Audit: In contrast, external academic audits enlist experts from outside the institution. They provide an impartial evaluation of the institution's academic programs, evaluating their quality and compliance with external standards and regulations.

Quality Assurance: Academic audits play a pivotal role in ensuring the quality and effectiveness of academic programs. They pinpoint areas where improvements are needed to meet or exceed established quality standards. Quality assurance in academic audits encompasses the evaluation of teaching methodologies, curriculum delivery, assessment strategies, and the overall learning experience provided to students.

Compliance Verification: Compliance verification ensures that the institution adheres to external regulatory and accreditation standards. This encompasses compliance with accreditation bodies' criteria, as well as institutional policies and guidelines.

Continuous Improvement: Academic audits yield valuable feedback that institutions leverage to enhance academic offerings, teaching methods, and administrative processes. The findings from an academic audit guide the development of action plans and strategies aimed at addressing identified weaknesses or areas of non-compliance

Roadmap for Continuous Improvement

Following the assessment conducted by the audit committee and the analysis of Course Outcome (CO) and Program Outcome (PO) attainments, a gap analysis are undertaken. This analysis helps in pinpointing areas in need of improvement. Subsequently, a strategic action plan is meticulously crafted to effectively bridge these identified gaps.

This action plan comprises specific strategies and activities tailored to enhance the achievement of COs and POs. It also addresses the recommendations from the audit committee's findings. The entire process is subject to a comprehensive review by the Program Assessment Committee of each department.

The committee then compiles a thorough report, complete with supporting evidence, for each PO. These reports are subsequently submitted to the Internal Quality Assurance Cell (IQAC).

This roadmap ensures that identified areas of improvement are addressed systematically and strategically to enhance the overall quality of education and align with institutional goals and standards.

Dr. A.U. Jawadekar
IQAC Coordinator

Prof. D.L. Bhombe
Dean Academics

Dr. S. B. Somani
Principal




PRINCIPAL
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