



Royal College of Arts Science and Commerce (Autonomous)
Affiliated to University of Mumbai

Program: **Bachelor of Science**

Course: **On-The-Job Training [OJT]**

Syllabus for Semester: **VI**

Syllabus for Undergraduate Programme as per
National Education Policy (NEP-2020) with effect from the
academic year 2026-2027 NEP Credit Structure for
Department of Chemistry

Course/ Paper Title	On-The-Job Training
Course offered as	OJT
Course Code	RUSCHOJT606
Semester	VI
No. of Credits	4
Duration	120 hrs.

Sr No.	Course Objectives
CLO1	To bridge the gap between classroom learning and real-world workplace requirements.
CLO2	To provide students with practical work experience and align their expectations with industry demands.
CLO3	To integrate physical and digital learning modes within industry environments through guided mentorship.
CLO4	To develop research competencies, including analytical skills, methodologies, and ethical practices.
CLO5	To expose students to emerging technologies and their real-world applications.
CLO6	To enhance entrepreneurial abilities and promote innovation and job creation.
CLO7	To strengthen problem-solving, decision-making, teamwork, and collaboration skills.
CLO8	To cultivate social responsibility and encourage philanthropic values.
CLO9	To promote collaboration between Higher Education Institutions (HEIs), industry, and academia for internships and research.
CLO10	To instill professional ethics, integrity, and values aligned with societal and employment needs.

Course Outcome

On completing the OJT program, the student will be able to:	
CO1	Apply theoretical knowledge gained in the classroom to real-world workplace situations, thereby strengthening practical understanding and skills.
CO2	Utilize emerging technologies effectively and understand their real-life applications, enhancing technological competence and adaptability.
CO3	Gain a comprehensive understanding of workplace culture, challenges, and opportunities, preparing them for future professional roles.
CO4	Adapt to and engage with diverse learning approaches, including hybrid and experiential learning environments.
CO5	Demonstrate strong research capabilities, critical thinking, analytical skills, and ethical practices in both work execution and communication.

CO6	Apply problem-solving techniques and make well-informed decisions in complex and dynamic real-world scenarios.
CO7	Collaborate efficiently in team environments, contributing to the achievement of common goals in diverse settings.
CO8	Exhibit a sense of social responsibility and sustainability by understanding their role and contribution to the broader community and industry.
CO9	Maintain integrity and professionalism in all interactions, adhering to established ethical standards and principles.

ON-THE-JOB TRAINING (OJT)

Introduction

On-the-Job Training (OJT) is an integral component of the curriculum designed to bridge the gap between theoretical learning and real-world application. It provides students with hands-on experience in professional environments, enhancing their employability, technical competencies, and workplace readiness.

This policy aligns with the principles of NEP 2020, emphasizing experiential learning, industry exposure, and skill development. on-the-job training programs also offer students the chance to develop essential skills that employers highly value. These include communication skills, problem-solving abilities, teamwork, and adaptability. By working in a professional environment, students gain valuable experience that enhances their employability. They also learn to navigate professional environments, manage responsibilities, and overcome challenges. This experiential learning fosters independence, confidence, and self-awareness, which are essential for success in both career and life.

Furthermore, students get a first-hand look at various industries and career paths. This exposure allows them to explore different fields, understand industry trends, and identify areas of interest. It also helps students make more informed decisions about their career paths after graduation. At the same time, students get valuable networking opportunities. They interact with professionals in their field, build relationships, and expand their professional network. These connections can benefit future job opportunities, mentorship, and career guidance.

Experience gained through internships/ on-the-job training certainly adds value to students' resumes. Employers often look for candidates with practical experience; internships give students a competitive edge in the job market. In addition, a successful internship can sometimes lead to full-time employment opportunities with the same organization.

Duration and Credits

- Minimum 120 hours of OJT
- Equivalent to 4 Academic Credits
- Ensure that all activities of OJT are conducted outside regular lecture and practical hours.
- Must be completed within the prescribed academic timeline

OJT Pathways

Students may choose from the following [list of areas for OJT](#)

1. Chemical Industries (Bulk & Fine Chemicals)
2. Petrochemical Industries
3. Pharmaceutical Industries
4. Polymer and Plastics Industry
5. Paints, Coatings, and Pigments Industry
6. Fertilizer Industry
7. Food and Beverage Processing Industry

8. Dairy and Agro-based Industries
9. Environmental Monitoring and Pollution Control
10. Water Treatment and Wastewater Management
11. Quality Control and Quality Assurance Laboratories
12. Analytical and Testing Laboratories
13. Research and Development (R&D) Laboratories
14. Biotechnology and Life Sciences Laboratories
15. Forensic Science Laboratories
16. Cosmetics and Personal Care Industry
17. Oil and Gas Industry
18. Nanotechnology and Advanced Materials
19. Green Chemistry and Sustainable Development
20. Energy Sector (Batteries, Fuel Cells, Renewable Energy)
21. Textile and Dyeing Industry
22. Paper and Pulp Industry
23. Cement and Construction Materials Industry
24. Mining and Metallurgical Industries
25. Agrochemical and Pesticide Industry
26. Clinical and Diagnostic Laboratories
27. Academic and Educational Institutions
28. Government Research Institutes
29. Contract Research Organizations (CROs)
30. Hazardous Waste Management and Safety Audits

Note: All options must be relevant to the student's domain/major subject

Faculty Mentor / Advisor

- Guide students in selecting OJT opportunities
- Help define **SMART learning objectives**
- Approve OJT plan
- Monitor student progress
- Review reports and provide feedback
- Participate in evaluation

Industry Supervisor

- Provide work exposure and training
- Guide students in tasks/projects
- Evaluate student performance
- Provide completion certificate

Students

- Identify and secure OJT opportunity (with approval)
- Maintain professionalism and discipline
- Complete required hours
- Submit all reports and documents on time

OJT Process

Phase 1: Pre-OJT

1. Orientation session by HOD
2. Student identifies organization/Industry/Company
3. Submission of:
 - OJT Proposal (organization + role)
 - Learning Objectives
4. Approval by Faculty Mentor

Phase 2: During OJT

1. Maintain:
 - Daily/Weekly Logbook
 - Weekly Progress Reports
2. Regular interaction with mentor

Post-OJT

1. Submission of: Final Report & Completion Certificate
2. Presentation / Viva Voce
3. Feedback submission

Documentation Requirements & Report Format

- Cover Page
- Certificate by the college
- Certificate by the Trainer/industry/Organization
- Declaration
- Acknowledgement
- Table of Contents

- Sequence of Chapters - Introduction, Trainer Profile, Work Undertaken, Work Experience & task completed
- OJT Undertaking
- Outreach Letter & Joining letter/ Offer letter
- Resume
- Weekly Reports / Logbook
- Guide Interaction Diary
- Evidences of Work Done
- Completion Certificate
- Conclusion & Future scope
- Evaluation of Intern

Evaluation and Assessment

	Component	Marks
Internal Evaluation	Weekly Reports / Logbook/ Diary	20
	Attendance / Guide Interaction	20
External Evaluation	OJT Final Report	20
	Presentation & Viva	20
	Quality & Relevance	20
Total		100