



Mahila Vikas Sanstha's

**INDRAPRASTHA NEW ARTS
COMMERCE & SCIENCE
COLLEGE,** AT POST NALWADI, DIST. WARDHA (M.S.)

Accredited 'B' by NAAC

— Approved by government
of Maharashtra

— Affiliated to Rashtrasant Tukadoji
Maharaj Nagpur University, Nagpur

— Recognised by U.G.C New Delhi
under section 2 (f) & 12 (b) of
UGC act 1956

Indraprastha New Arts Commerce and Science College, Nalwadi, Wardha (Maharashtra)

Student Centric Teaching- Learning

Experiential Learning:

Experiential learning engages students in critical thinking, problem solving and decision making in contexts that are personally relevant to them. This approach to learning provide students opportunities for debriefing and consolidation of ideas and skills through feedback, reflection, and the application of the ideas and skills to new situations.

Experiential learning focuses on the learning experiences for the individual. One example of experiential learning is going to the Industry and learning through observation and interaction with the industry persons, as opposed to reading about machines from a book. Thus, student makes inventions and experiments with knowledge firsthand, instead of hearing or reading about others' experiences. Likewise, internship, industrial training, field trips provide opportunities in a student's field of interest and can give valuable experiential learning which contributes significantly to the student's overall understanding of the real-world environment.

1. Field Trips

Educational Field trips provide students with a great opportunity to learn in an informal environment, while building long-lasting relationships with other students and teachers. Just reading curriculum books on commerce, science, art, humanities and history doesn't help students with practical knowledge attained in the real world.

Field trips to important places encourage students to develop personalities and learn in an informal setting. Students are even more encouraged and engaged to learn from these experiences. Different departments in the college arrange field trips as a part of curriculum.

Example:

Other departments also organize field trips at different locations. Students make field project reports.

Field experiences early in a student's career can be formative and can inspire students to continue in a field. Such learning experiences outside the classroom are inherently interdisciplinary which help students to wider scope of their knowledge.

2. Industrial Visits

Industry visits play an important role in the New Arts Commerce and Science College education programme. Students are taken for industrial visits in and around Wardha, Nagpur where they interact with the industry persons and have a first-hand experience of how a corporate entity actually works.

The objective of an industrial visit is to provide students an insight regarding internal working of industries. We strongly believe that the theoretical knowledge gained by student through classroom teaching is not enough for a successful professional career. With an aim to go beyond academics, industrial visits provide students a practical perspective of the work places. Practical and hands on learning is essential for better understanding of work processes and business functions. Industry visits bridge the gap between theoretical learning and practical learning in a real-life environment.

Different departments in New Arts Commerce and Science college arrange industrial visits for students. Commerce and BBA/ B.Com arrange industrial visits for students so that they get hands-on experience of Marketing, Finance, Operations and or Supply Chain etc.

Science departments arrange industrial visits for students to get knowledge of physical/ chemical/ biological processes.

3. Internships and Industrial Training

Internships provide students valuable experience and expertise that can help them secure their dream job in the industry. The best part about internships is that it teaches students about the specific industries and institutes they are interested in. Industrial training refers to the work experience given to students that is relevant to professional development prior to the graduation. In Industrial training students join the company which is relevant to their interest and subject and they complete their training in particular time frame.

Students from different departments of college go for internships and industrial trainings: The industries that offer internships and industrial trainings are

Summer and Winter Schools

The Summer and Winter Schools arranged at New Arts Commerce and Science College are providing opportunities for students to get valuable learning experience that goes far beyond the traditional classrooms. These schools can provide a valuable learning environment for students. The College arranges these schools for science students. Faculty of the college as well as experts

from outside called to guide students. In these schools practical experiences are provided to the students.

Visits to National Laboratories and Research Centres

Teaching and learning can become inherently spontaneous and student-centered when moved from the confines of the traditional classroom into the world at large.

For this purpose, college arranges visits to science laboratories and research institutes. Visits to research centres and laboratories is one of the channels disseminating techno-scientific information students. The educational activities promoted though by these visits, differ drastically from that activities taking place within the formal educational system. The research institutes visited by students are renowned institutes such as MGIRI, Wardha, Uttam Galva Metallics etc.

Students observe research work and scientific equipment in these laboratories. Research personnel and scientists often discuss with students during these visits. These interactions help students to get understanding of recent research work going on and technological developments. These visits also help students to develop scientific tempers.

Participative Learning

Every student his or her learning habits. Some students learn fast with books and others learn better from friends or demonstrations. Students may enjoy learning through group work and some may prefer learning through real life experimental demonstrations. When student compare

his or her experience with other students, he or she may find different students have different learning styles. We believe that each of our learner is different and different teaching-learning strategies are necessary for them. Teachers of our college act as facilitator and design different flexible strategies. Participative learning is one of strategies found to be useful in this case.

1. Hands-on Training Workshops

Different training workshops are arranged for students. Some of these workshops are

1. Physics LED Light...

2. Chemistry workshop

3.FD workshop 2

4. Computer Science workshop

5. Biotechnology

6. Microbiology

Each training workshop starts with short discussions about the aim of the workshop and expectations of participants. Then demonstrations are given to the students by experts. After demonstrations students are divided into small groups. Each group have to prepare the task presented to them. Guidance is provided whenever necessary to each group. At the end feedback from the group on their work using what they had learnt during training is taken by the facilitator. In this training workshop facilitator discuss many aspects with students of what and how they learn. These discussions help us to know what they are learning and what is happening around them. Hands-on training increases students' engagement level.

2. Management Week (Commerce and Mgt Department)

An activity of Management week is a unique feature of Commerce and Management department which is conducted every year. Management week is the programme which is organized to provide a practical training of management activities to Commerce students. Experts are invited to provide a conceptual knowledge on the various management aspects to the students. All activities of the programme such as planning, narrating, coordination, vote of thanks etc. are especially conducted by students

Geography Week

Every year geography week is celebrated by Geography department. Different types of competitions such as Geographical models competition, poster presentation, PowerPoint presentation competition, rangoli competition on geography, essay competition are arranged for students. Prizes are given to winners in the competitions. Guest lectures of different eminent personalities are arranged for students. This programme is found to be useful for creativity of students.

Nature Club (Biotechnology Department)

Nature club is established in the college. Department of Geography looks after the activities of the Nature club. The objective of this club is to increase students' participation in environmental conservation and to create awareness about changes in natural cycle. Nature club also aims to

give pleasure to students about nature. Trekking activities are arranged for students. Guest lectures about environmental awareness are arranged for students.

Nature club

is established in the college. Department of Geography looks after the activities of the Nature club. The objective of this club is to increase students' participation in environmental conservation and to create awareness about changes in natural cycle. Nature club also aims to give pleasure to students about nature. Trekking activities are arranged for students. Guest lectures about environmental awareness are arranged for students.

Competition

The Computer Science Department of the college started Organizing quiz like Event from 2018-19 where the students from numerous college were hugely participated. In this event following competitions are arranged

C King Competition

- Poster Exhibition and Project Competition
- Quiz Competition and Seminar Competition
- Link to activities

Exhibitions (Microbiology)

Exhibition is an opportunity for students to apply the scientific method to conduct independent research. The main objectives of organizing exhibitions are

- (i) to inculcate scientific attitude in the young generation to make them realize the interdependence of science, technology and society.
- (ii) provide exploratory experiences and encourage creative thinking,
- (iii) promoting psychomotor skills through self designed models or experiments. New Arts Commerce and Science College organize Science Exhibition every year.
- (iv) In these exhibitions students present their model. Students and citizens of adjoining areas visit the exhibition. In these exhibitions students explain their work to audience. Student work is evaluated by experts. Exhibition help participation of students in following way:
 - (1) learn more about communications skills.
 - (2) become more knowledgeable about how the world around them works
 - (3) develop the skills of leadership and learn how to work in groups through such events
 - (4) generate deep interest in young minds of students.
 - (5) inculcate Scientific aptitude in students' minds

Event

Department of BBA/BCCA very year organize Open Mind (OM) event in which students participate in following activities:

- Vyapar Manthan
- 'C' Programming competition
- Personality Development workshop
- PPT presentation Poster competition•

- Group Discussion and seminars

Teachers arrange group discussions for students in which a question can be asked and students can be invited to discuss possible answers from groups of students with each other. These discussions engage students in meaningful way, provide feedback. Participation in discussion encourages dialogue among and between students. It can be used to develop important speaking skills among students. Participation in group discussions gives students the opportunity to practice using the language of the discipline and chance to increase their vocabulary. Group discussions are regularly used in science laboratories also to discuss about outcomes of certain experiments.

Survey by Students (BA/MA/MSW/BSc)

Student participation in structured extra-curricular activities linked to academic activities is one of the feature of New Arts Commerce and Science College. Students are actively involved in different socio-economic surveys conducted by college. Biodiversity survey, Energy utilization survey, Vitamin deficiency survey of school children, Soil and water testing are some activities conducted in villages in which students actively participate. These surveys are helpful for students in their communication skills, data interpretation. Students also get knowledge about socio-economic conditions of society.

Collaborative Learning

1. Problem Solving Activity

The connection between problem solving and conceptual understanding is symbiotic. Problem solving skills are necessary in all areas of life. Classroom problem solving activities can be a great way to get students prepared and ready to solve real problems in real life scenarios. Most of teachers in science stream of the New Arts Commerce and Science College adopt problem solving activities for students.

Problems given to the students are not mere exercises but true problems. Problem solving skills are taught in the context in which they will be used (e.g., mole fraction calculations in a chemistry course).

Real life examples are used in explanations, examples, and exams. For example, in waves and oscillations course while solving problems real-life examples are given to students.

Problem sets are given to students and they were asked to solve problems either individually or in group. In order to solve problems, students are asked to define end goal. This step is crucial to successful learning of problem-solving skills. Enough time is given for understanding the problem and defining the goal, both individually and as a group. Help is given to them wherever necessary.

Some problems are given to students to predict “what would happen if ...” or explain why something happened. This helps them to develop analytical and deductive thinking skills. While solving problems students may make errors. These errors are considered as misconceptions and help is rendered them to isolate misconceptions and correct these. In this activity the students are expected to observe, understand, analyze, interpret problems and find solutions, and perform applications that lead to a holistic understanding of the concept. This activity develops scientific process skills which enhance their conceptual understanding of topics they learn in classroom.

2. Technology in Classroom and Group Activity

Objectives of using these approaches are:

Give students extended and quality educational

- material and resources to explore and do their best work.
- Engage and motivate students productively to
- complete their tasks Use technology and promote group learning
- Provide students hands on training
- Virtual laboratory support is provided to the students through platform provided by VALUE@Amrita.

In addition to traditions practical they perform virtual experiments. To perform such experiment students are divided in groups. During this activity, students discuss with each other which help them to understand the concepts. This activity encourages collaboration and communication among teachers and students. Scientific Experiments using Computer interface is an effort to explain to the students how computer is useful in measuring and controlling physical parameters and processes.

The college has made available variety of computer interfaces such as **Science Cube, Labmate, Einstein Data Loggers, LabView software and MyDaq data loggers, Lab quest mini, Language Lab.**

These interfaces are useful to interface experiments on measuring and controlling parameters like temperature, intensity of light and sound, humidity, current, voltage etc. could be taken up to illustrate use of computer in a variety of processes.

Faculties of Physics, Chemistry and Mathematics have developed computer simulations on different topics and they are used for teaching-learning purposes. Some of the subjects covered in these simulations are Quantum Mechanics, Simple Harmonic Motion, electrostatics, Integration, Differentiation, Chromatography. Animations are developed by faculty members on HPLC, Newton's laws of motion, simple harmonic motion, electrostatics, dielectrics, Atomic absorption spectroscopy etc.

Google classrooms, WhatsApp, Moodle, Teachmint are some ICT tools used by teachers to communicate with students. PDF, Notes, PowerPoint presentations, assignments are shared through these tools. Due to use of these tools collaborations among students, teachers, and parents become easier. They can communicate and collaborate more effectively.




PRINCIPAL
New Arts, Commerce & Science
College, WABDHA