

ARYABHATT INSTITUTE OF TECHNOLOGY

formerly Aryabhat Polytechnic
DIRECTORATE OF TRAINING & TECHNICAL EDUCATION
GOVT. OF NCT OF DELHI
G.T. Karnal Road, New Delhi - 110 033
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MANUAL NO. 01

PARTICULARS OF ORGANIZATION, FUNCTIONS AND DUTIES

(I) Name and Address of the Organisation: Aryabhata Institute of Technology, Opposite Shakti Nagar Telephone Exchange, G.T. Karnal Road, Delhi - 110 033

(II) Head of the Organization: Principal

(III) VISION,MISSION & KEY OBJECTS:

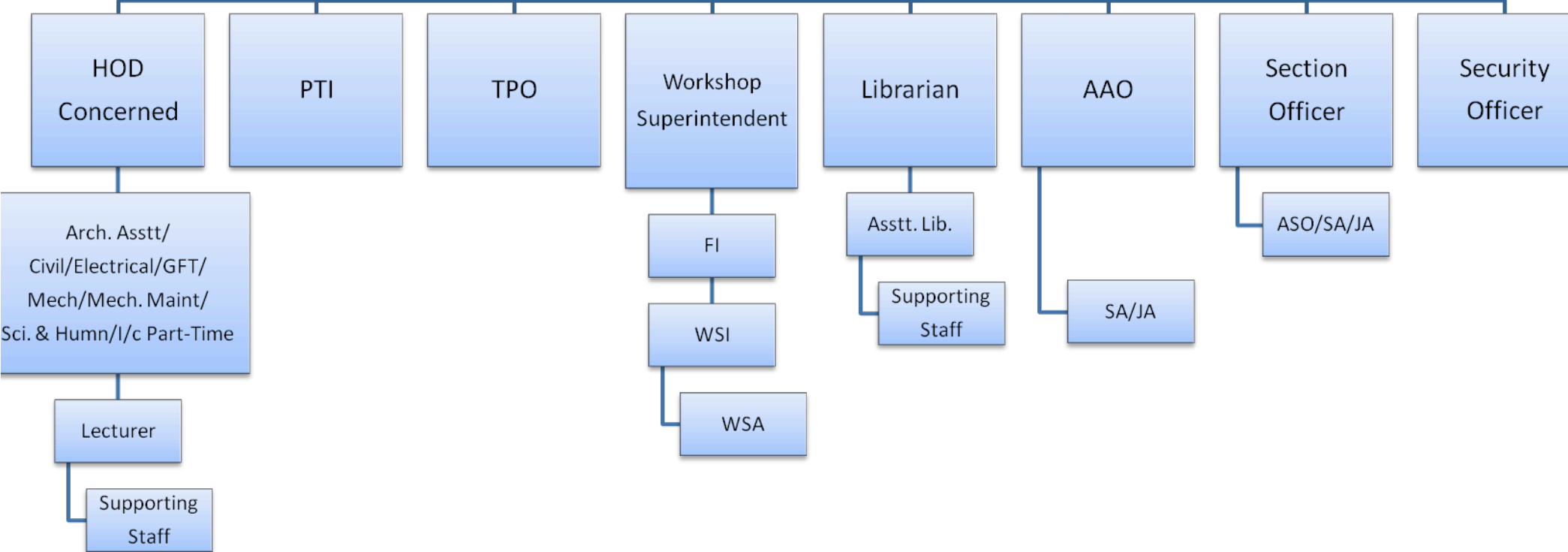
- Accomplishment of Curricular, Co-curricular and extra-curricular activities.
- Provision of trained technical manpower to meet the requirement of industries.

(IV) FUNCTION & DUTIES

- Implementation of Academic Calendar, Institution Management and Govt. orders.

(V) ORGANISATION CHART

ORGANIZATION CHART
Principal



(VI) OTHER DETAILS OF THE INSTITUTE

CAMPUS AREA

- **6.3259 Acre Total Area**
- **Total constructed Area of 13275.83 sq. mts.**
- **Building Consists L-Type Block**
- **College Building as per A.I.C.T.E. norms with appropriate Classrooms, Conference Hall and Multi-purpose Hall.**
- **Playground and Badminton Court.**

BRIEF HISTORY AND BACKGROUND FOR ITS ESTABLISHMENT

- **ARYABHATT INSTITUTE OF TECHNOLOGY** formerly Aryabhat Polytechnic is a premier Polytechnic under the Department of Technical Education, Govt. of Delhi. The Polytechnic was established in year 1962, and is located in a spacious campus on G.T.Karnal (adjacent to Shakti Telephone Exchange) and hence is well connected by buses and easily accessible. The Institute offers six full time Diploma courses in generic branches of engineering i.e. Civil, Electrical, Mechanical, as well as in emerging areas of technology i.e. Mechanical & Maintenance, Architecture and Gas Fabrication Technology. The polytechnic is also running three Part Time Evening Diploma courses in Civil, Electrical and Mechanical Engineering working personnel, under Continuing Education Programs. It has student strength of about 1800.
- Institute has also started Bachelor of vocational course in two branches 1. Construction Technology (Run by Civil Engineering Department) 2. Refrigeration & Air-conditioning (Run by Mechanical Engineering Department)

WORKING HOURS BOTH FOR OFFICE AND PUBLIC

- **9.30 AM to 6.00 PM (Office Hours)**
- **8.30 AM to 5.00 PM (Full Time Diploma Courses)**
- **1.00 PM to 9.00 PM (Part-Time Diploma Courses)**
- **8.30 AM to 5.00 PM (Public Hours) & Parents of students can meet if needed.**

DIPLOMA COURSE OFFERED

- **MECHANICAL MAINTENANCE ENGINEERING**

- Diploma Engineers in the stream learn various aspects of mechanical engineering with special emphasis to maintenance of machines to achieve productivity. However, productivity is achieved only when a machine is coupled with human skill to its full capacity. In specialization of maintenance engineering, in addition to the basic operations of machines, knowledge is also imparted to maintain the machine, so that productivity does not fall. Students learn to ensure the smooth running of an industry with minimum downtime of a machine. The important subjects being dealt with are General Mechanical Maintenance, Control & Pneumatics, Electrical & Electronic Maintenance, Metrology etc. Total Intake of student in this course is 30.

- **CIVIL ENGINEERING (FULL TIME & PART –TIME)**

- The Department is equipped to train the students in the specialized field of Construction in Civil Engineering works. The Diploma holders in Specialization in Construction Engineering are recruited in construction industry, in private and public sectors. They can also start entrepreneurial ventures of their own. Total Intake of student in this course is 60 in morning and 60 in part time shift.

- **ARCHITECTURE ASSISTANTSHIP**

- The objective of this course is to make the students acquire skills in draftsmanship, model making, preparing working drawings, specifications, site drawing and preparing rough estimates on area and volume basis. A diploma holder acquires knowledge of basic concepts of design, town planning, building Specialization in Construction Engg., structural engineering and relevant work involved therein. The Architecture Departments have equipped computer laboratories where the students are given training on Architecture design related software. Total Intake of student in this course is 60 in morning.

- **ELECTRICAL ENGINEERING(FULL TIME & PART –TIME)**

- The objective of this course is to make the students acquire skills in draftsmanship, model making, preparing working drawings, specifications, site drawing and preparing rough estimates on area and volume basis. A diploma holder acquires knowledge of basic concepts of design, town planning, building Specialization in Construction Engg., structural engineering and relevant work involved therein. The Architecture Departments have equipped computer laboratories where the students are given training on Architecture design related software. Total Intake of student in this course is 60 in morning and 60 in part time.

- **MECHANICAL ENGINEERING(FULL TIME & PART –TIME)**

- This Diploma Course has been started with a view of training students in the vastly emerging industries of India using new technologies like Instrumentation, Chemical engineering, Manufacturing Engineering, Aviation, etc.,. All Engineering Industries connected with above areas have to rely on Instrumentation such as Measurement & Instrumentation, Quality Control, calibration & testing etc.,- all very much an essential part of the entire process in any industry. To cope up with the modernization of Indian Industry & Quality Control, the syllabus & objectives of teaching have been formulated.

to encompass the areas of Computers , Manufacturing Engineering, Robotics & Industrial Automation which are now important areas of study. Intake of student in this course is 120 in morning and 60 in part time shift.

- **GARMENT FABRICATION TECHNOLOGY**

- In this technology based Diploma course, the students are imparted theory and practical knowledge in the fields of garments and basic textiles, testing, basic fashion designing, sampling, computer aided designing, pattern development, layouts, production, quality control, project preparation management and merchandising etc and are given necessary industrial exposure. The Department is equipped with requisite infrastructural support facilities. The pass out students are able to get placement as production managers/supervisors, Entrepreneurs, in textile-testing jobs or as executives, fashion coordinators, quality controllers, designers, Merchandisers, executives meeting technological needs of garment industry. Intake of student in this course is 60 in morning .

- **BACHELOR OF VOCATIONAL COURSE**

- Institute has started Bachelor of vocational course in two branches 1.Construction Technology (Run by Civil Engineering Department) 2.Refrigeration & Air-conditioning (Run by Mechanical Engineering Department. These courses are affiliated to IPU Delhi. Each Bachelor of Vocational (B.Voc) Programme has intake of 50 students in morning.

- **INFRASTRUCTURE**

- **WORKSHOPS**

The Mechanical Engineering Workshops are headed by the Workshop Superintendent. Aryabhata Institute of Technology has the following Workshops:-

1. CARPENTRY WORKSHOP
2. FITTING AND ADVANCE FITTING WORKSHOP
3. MACHINE WORKSHOP
4. SHEET-METAL WORKSHOP
5. WELDING WORKSHOP
6. TURNING AND ADVANCE TURNING WORKSHOP
7. PATTERN MAKING WORKSHOP
8. PAINTING WORKSHOP
9. GRINDING WORKSHOP
10. PRESS WORKSHOP
11. FORGING WORKSHOP
12. FOUNDRY WORKSHOP

13. PLUMBING WORKSHOP

14. CNC Lab (WORKSHOP)

1. CARPENTRY WORKSHOP:

In this workshop the students of various branches of Engineering and Technology are taught about the tools, equipment and materials used in Carp Workshop. The major raw material used in Carpentry Workshop is wood. The processes done in the wood work are sawing, marking, planning, various types of joints etc.

2. FITTING AND ADVANCE FITTING WORKSHOP:

Fitting work is a very important work in Engineering. In this Workshop students of various branches of Engineering and Technology are taught : removal of unwanted material with the help of hand tools for mating, repair and manufacturing purposes.

3. MACHINE WORKSHOP:

In this workshop students of various branches of Engineering and Technology are taught about the various tools and different operations to be performed on various types of Machines such as Milling Machines, Shaper, Planner, Radial Drilling etc.

4. SHEET-METAL WORKSHOP:

Sheet-Metal work is regarded as working on thin metallic sheets. Many important Engineering articles are made up of sheet metal. So it is necessary for students of various branches of Engineering and Technology to be taught about the construction and working of hand tools used for Sheet-Metal work.

5. WELDING WORKSHOP:

Main purpose of Welding is to join two metal pieces permanently by Arc welding, Gas welding etc. Students of various branches of Engineering and Technology are taught about various welding techniques used in manufacturing of Steel Furniture, Construction of Railways, Automobiles, Aeroplanes, Rockets, Missiles etc.

6. TURNING AND ADVANCE TURNING WORKSHOP:

Turning Workshop is a very important Workshop in Engineering and Technology. The students of various branches of Engineering and Technology are taught about various operations to be performed on the Lathe Machines used for Production, Tool Room, Maintenance etc. by using various Attachments and Accessories.

7. PATTERN MAKING WORKSHOP:

The Pattern is a model of component to be cast in Foundry. It is used to form a cavity in the sand. The students of various branches of Engineering and Technology are taught about various types of pattern, their material, method of preparation of pattern etc.

8. PAINTING WORKSHOP:

In this workshop the students of various branches of Engineering and Technology are taught about the various types of Paints and Primer, Functions of Paint and Primer, Properties of a Good Paint etc.

9. GRINDING WORKSHOP:

In this workshop students of various branches of Engineering and Technology are taught about various types of Grinding Machines, Grinding operations and also taught about the method of preparation of grinding wheels.

10. PRESS WORKSHOP:

Various branches of Engineering and Technology are taught about various types of Presses, punches, dies and various types of press operations performed on press machine used for mass production.

11. FORGING WORKSHOP:

The students of various branches of Engineering and Technology are taught about processes involved in Forging Workshop like Hammering, Swage Bending etc. In this workshop metal piece is given a desired shape by heating and hammering.

12. FOUNDRY WORKSHOP:

The students of various branches of Engineering and Technology are taught about preparation of moulds used for metal castings. In this workshop jobs are prepared by melting and pouring the molten metal into moulds.

13. PLUMBING WORKSHOP:

Plumbing Workshop is a very important concept for various branches of Engineering and Technology. The students of various branches of Engineering and Technology are taught about various types of pipe fittings, various tools, equipments, machines, tap and die etc. used to perform various operations in plumbing.

14. CNC Lab (WORKSHOP):

CNC Machines have become very common in Industries now a days. Almost every Industry is replacing its old conventional Machine Tools by these machine tools. So it is very necessary for the students of various branches of Engineering and Technology to teach about the various CNC Machine operations etc. to meet out the Industry demands.