# **GOVERNMENT POLYTECHNIC**

# PANAJI

# **CITIZEN CHARTER**

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A website is available at http://www.gpp.nic.in.

#### **GOVERNMENT POLYTECHNIC, PANAJI**

#### **INSTITUTION CHARTER**

#### 1 **INTRODUCTION:**

1.1 In pursuance to the decision taken, the state Government has directed various departments of Government of Goa to prepare and publicize the "Citizens Charter" for accountability and transparency to the public of State of Goa. The Government Polytechnic, Panaji has also decided to bring out a "Citizen Charter" for the benefit of students, parents and public in general. It provides comprehensive information pertaining to admission procedure, examination procedure, various facilities available to the students, brief introduction of courses run by the Institute, procedure for admission in the Hostel, procedure for payment of fees and refund thereof, etc.

#### **2 BACKGROUND OF THE INSTITUTE:**

- 2.1 Technical Education of Goa, prior to 1963, was under the Department of Technical Education, Portugal, in Portuguese medium. The Institution was known as "Escola de Industrial e Commercial" Certificate Courses were conducted in different vocations.
- 2.2 After the liberation of Goa in 1961, Technical Education developed rapidly and trained the following manpower:
  - Skilled worker/Craftsmen
  - ➢ Technicians
  - Engineers/Technologists.
- 2.3 Government Polytechnic, Panaji, was started in August, 1963. The 'Institute of Escola de Industrial e Commercial' was upgraded to the Polytechnic status. The Institute started with three branches namely Civil, Electrical and Mechanical Engineering with 40 seats each.
- 2.4 The Institute was shifted to the spacious campus at Altinho in 1968. The Campus contains Boy's Hostel with a capacity of 300 and Girl's Hostel with a capacity of 150 was started in 1985. Women's Wing of Polytechnic was started in 1984. The year-wise development of Polytechnic is shown on the next page.

2.5 The Institute has well equipped Gymkhana and an open ground for playing outdoor games.

Courses	Duration in Terms	Intake at present	Year of starting
Civil Engineering	6	40	1963
Electrical Engineering	6	30	1963
Mechanical Engineering	6	40	1963
Fabrication Technology &	8	30	1973
Erection Engineering			
Electronic Engineering	6	40	1976
Food Technology	7	15	1976
Electronics & Instrumentation	6	20	1984
Computer Engineering	6	20	2007
EXTENSION WING			
Modern Office Practice	6	30	1976
Architectural Engineering	6	30	1996
Garment Technology	6	30	1996

2.6 There are separate canteens for Main Building as well as Women's Wing

#### 2.7 THE STAFF STRUCTURE IS AS FOLLOWS:

Principal	01
H.O.D.'s	12
Lecturers	66
Instructors	05
Deputy Registrar	01
Assistant Accounts Officer	01
Assistant Stores Officer	01
Librarian	01
Supporting Staff	135

# **3 PRESENT STATUS OF ACTIVITIES:**

#### 3.1 CIVIL ENGINEERING DEPARTMENT

- 3.1.1 The Diploma Course in Civil Engineering with an intake of 40 students per year
  - > imparts quality education in the following areas:
  - Construction Technology
  - Building Drawing
  - Transportation Engineering
  - Surveying & Levelling
  - Soil Mechanics
  - Civil Structures Mechanics, Analysis,
  - Design and detailing
  - Environmental Engineering
  - Irrigation Engineering
  - ➢ Hydraulics
  - Quantity Survey and Costing
  - Construction Management
- 3.1.2 The department is in a position to offer consultancy in:
  - Planning of Buildings.
  - Design of R.C.C. and steel structures
  - Analysis of existing structure for fitness
  - Valuation of building and industrial structures
  - > Land surveys such as preparation of layout plans, demarcation of sites, contouring.
  - > Checking measurement of Civil works executed by different agencies and billing.
  - ➢ Soil Testing.

#### 3.2 DEPARTMENT OF COMPUTER ENGINEERING:

- 3.2.1 Diploma in Computer Engineering is a 3 year programme started in 2007. It is offered to 10th passed out students with an intake capacity of 20. Additional 10% seats are reserved into Direct Second Year for ITI/Vocational Stream.
- 3.2.2 The programme equips the pass out with knowledge of computer hardware and software in general with an input knowledge of all working programmes. The students are exposed to the Industrial environment by sending on training within the curriculum so as to better equip them for employability.
- 3.2.3 The department has an infrastructure of 3 computer Laboratories which can support 3 batches of 20 students each for practical's on the desktops at a time. It also has a Hardware Laboratory for students working. The department also houses the Networking Server which provides networking and internet facility to various clients in all the departments including extension wing.
- 3.2.4 The final year students are also capable to take up computer based projects in collaboration with the Industry or any Department as per their requirements.
- 3.2.5 The department also provides service to many other Government departments/Agencies for providing infrastructure facility of the Computer Laboratories for conducting tests either on-line or off-line and also Seminars/Workshops requiring computer Laboratory facility.

#### 3.3 MECHANICAL ENGINEERING DEPARTMENT:

- 3.3.1 Mechanical Engineering is one of the basic and the most conventional courses. This course is being offered right from the inception of Polytechnic in Goa.
- 3.3.2 The basic science and engineering subjects are introduced in the first two terms. The general introduction to Electrical, Electronic, and Mechanical is done in the next two terms. Students are exposed to design, production, and management and also awareness to Computer studies. The Course provides sufficient practical background. Projects and Seminars provide a good opportunity to apply their knowledge in real situations.
- 3.3.3 The department can offer the following to the industries:
- To find solutions to the problems in the areas of production, inventory, materials handling, line balancing, scheduling, quality, control, inspection.
- > To organise short term courses and consultancy for supervisory level Personnel.
- > To prepare instructional manuals/working drawing.
- To prepare inspection cards.
- To organise long term courses such as AMIE for industrial personnel after working hours.

- > To organise short term courses on:
  - Inventory control
  - Metrology.
  - Quality Control.
  - Industrial Management.
  - Human relations.
  - Industrial Hygiene and safety.
  - Project Management
  - CAD/CAM

#### 3.4 WORKSHOP SECTION:

- 3.4.1 The workshop section of Government Polytechnic, Panaji, has completed thirty three years of its fruitful existence by training technicians in Engineering in various disciplines.
- 3.4.2 The section provides training in the first year of various courses conducted in this Institute. The skills are imparted in carpentry, fitting and welding. At the first, second and third year level, the workshop section offers practical training in acquisition of skills in the use of various conventional machines and equipment's and aids in the implementation of practical projects of students.
- 3.4.3 The practical training is mainly for the diploma students in Mechanical Engineering. The workshop is well equipped with various tools, equipment ©and machinery which include the following:

• Centre lathes	25 Nos
• Shapers	5 Nos.
Milling Machine	2 Nos.
Power Hacksaws	2 Nos.
Surface Grinder	1No.
Radial Drilling Machine	1No.
• Upright Pillar Drilling Machine	1No.
• Turret Lathe	1 No.
• Automatic Spindle Lathe	1No.
<ul> <li>Slotting Machine</li> </ul>	1 No.
<ul> <li>Pantograph Milling Machine</li> </ul>	1 No.
Pedestal Grinders	3 No.

#### 3.5 ELECTRICAL ENGINEERING DEPARTMENT:

- 3.5.1 The curriculum of this discipline is oriented to make students learn in the field of power systems (distribution, transmission, switch gear and protection), besides giving wide knowledge with regards to working principle, Testing, Control and Maintenance of AC and DC Machine.
- 3.5.2 To develop hand skills, a course is provided in each year like Electrical workshop at III and project at I & IV terms wherein the students study assembly and trouble shooting of various commonly encountered Electrical/Electronic devices. In the project II at final terms level students design, assemble/fabricate gadgets relating to Electrical/Electronic field which involve Soldering, Winding & Testing, etc.
- 3.5.3 The laboratories of the department are well equipped to impart skill in all relevant areas of Electrical Engineering.

#### 3.6 ELECTRONIC ENGINEERING DEPARTMENT:

- 3.6.1 Diploma course in this branch was started in the year 1976. The present intake is 40 students. The growth of industries due to the economic liberalization has resulted in several multinational companies. This course caters to substantial technical manpower requirements in the middle level management.
- 3.6.2 The curriculum mostly revolves in the practical domain starting with fundamentals of semi-conductor devices, circuit analysis, analog electronics and digital electronics circuits are a specialization, process control in Instrumentation is also dealt with, the final terms of the course relies on Microprocessors and Applications (8085), Introduction to 8086 along with Computer Programming "C" as well as Embedded systems, Web Technology, Industrial Electronics Project is carried out mostly individually, almost for one year, generally from the basics of course content learnt.
- 3.6.3 The infrastructure caters abundantly for the syllabi of the course. The basic equipments include CRO's, Dual Power Supplies, Analog & Digital multimeters, Function Generators, Trainer Kits in Electronics, Microprocessors, Oscilloscopes, Monochrome TV & VCR. Digital IC Testers. LCR meters and Magnetic Amplifiers. CCTV Camera set up are also available in the laboratories.

#### 3.7 FOOD TECHNOLOGY DEPARTMENT:

- 3.7.1 The Food Technology course was started in 1976 in a sandwich-pattern consisting of two phases of Industrial training as part of the curriculum. It is a seven semester course. Students completing this course are well qualified to work at Supervisory/middle management levels in the production and quality control departments of Food processing industries. as in Food Analyst, Food Microbiologist Food Products in manufacturing units and Star Hotels under Food safety certification.
- 3.7.2 The first and second terms include basic course in Chemistry, Physics, Mathematics, etc Food Microbiology and Food Engineering. The higher terms comprise of courses such as Fruit and Vegetable Technology, Food Engineering, Food Microbiology, Cereal Technology, Technology of soft drinks, Technology of Food products. Dairy Technology, Marine products Technology, Animal products Technology. Food standards and quality control, etc. Project work is undertaken by the students in the fifth and sixth terms. Industrial Training is in two phases, one in fifth semester and another in seventh semester.
- 3.7.3 This department is equipped to offer analysis/testing facilities in accordance with Food Safety and Standard Act Regulation and training of personnel for the same, in the following areas:
  - Analysis of Fruit & Vegetable Products.
  - Analysis of raw material for use in Bakery Industry.
  - Chemical & Microbiological testing of water.
  - Testing of market milk.
- 3.7.4 This department can provide technical consultancy in the following fields:
  - Fruit & Vegetable Technology.
  - Technology of Bakery Products.
  - Soft Drinks Technology.

#### 3.8 FABRICATION TECHNOLOGY & ERECTION ENGINEERING DEPT.:

- 3.8.1 This sandwich course was started in the year 1973 with an intake of 30 students. It is a 4 year course and the pass out students play a pivotal role in the erection and fabrication of steel structures at various industries.
- 3.8.2 The curriculum aims at providing technical manpower to the fabrication industries at the middle level management. It is a sandwich pattern course with industrial training in two phases at V and VIII Terms as a part of the curriculum. The first and second terms includes basic engineering courses. The higher terms consists of curriculum dealing mostly with welding and fabrication processes, erection and commissioning of structures, off shore structures, piping engineering and boilers and pressure vessels.

3.8.3 The Department would be able to help in controlling quality to ISI specification of industries. It can help in erection of machines, trusses, cranes, towers. Welding quality inspection for different structures can be taken up by the department.

# 3.9 ELECTRONICS & INSTRUMENTATION ENGINEERING DEPARTMENT:

- 3.9.1 The Department has an intake of 20 students per year in the first year and 6 students in the second year being direct admission for ITI/Vocational Students.
- 3.9.2 The programme trains the students in the core area of electronics and application of Electronics in Instrumentation used in Industry in the following area: Industrial Automation, Building Automation, Process Instrumentation, Biomedical Instrumentation, Analytical Instrumentation, PLC and SCADA, Calibration etc. which are in demand in Industries such as Pharmaceutical, Oil and gas, Cement Plants, Food and Beverage, Green Buildings as well as electronics Manufacturing and Servicing Industry.
- 3.9.3 The Department has excellent Laboratory facilities and provides first rate hands on training to students which are evident by several national levels awards won by student in project competitions.
- 3.9.4 Diploma pass-outs are employed as Electronic assembly production line engineers, PLC engineers, Calibration engineers, BMS engineers in the state as well as oil and gas based industries and building automation systems in the middle East countries.

#### 3.10 GARMENT TECHNOLOGY DEPARTMENT:

- 3.10.1 This is a three year Diploma Course. The course enables them to learn the elements of Garment Technology and Fashion Designing. The students are taught subjects broadly based on textiles, garment Construction, Designing and Industry.
- 3.10.2 The subject includes:
  - Basic Sewing & Pattern Making, Women's Pattern construction Indian & Western
  - Gents Garments
  - Children's Garments
  - Textiles fibres, Textile Designing & Textile Construction
  - Dyeing Techniques
  - Colour & Garment Design, Fashion Illustration, Design Appreciation
  - Fashion Accessories
  - History of World Costumes
  - Entrepreneurship
  - Knitwear
  - Fashion Event Management and Showcasing fashion
  - Portfolio Development
  - Industrial Training

- Industrial Garment Manufacture, Garment exports and Imports, Fashion Merchandising & Fashion Business Management.
- 3.10.3 The faculty includes fashion designer's Textile majors, Garment Industry personnel and Experts. The aim of the course is to train students to become technical experts in Field of Fashion Textiles and Garment Industries as well as to start their own small scale Industry and boutiques. The course can help manufacturers in getting the right personnel for their factories. Also, during the course the Institute could help the Industry getting good designs, projects and overcome their quality related problems.

#### 3.11 ARCHITECTURAL ENGINEERING DEPARTMENT:

- 3.11.1 With the growth of building Industry in Goa, the number of practicing Architects and interior designers has been increasing. Also the need is increasingly felt for trained Assistants to work in the Architects offices, Interior Designers and Town Planning Department.
- 3.11.2 The course is so designed to train young students having standard tenth certificate to work as efficient Architectural Engineers. The course is divided into six terms and covers subjects like Basic Drawing, Architectural Drawing, Building Materials, Model Making, Surveying, Architectural Design, Building Technology, Building Services, History of Architecture, Town Planning and Estimation.
- 3.11.3 The students in final year Diploma have to work on project and undergo practical training. Infrastructure of the course includes:
  - Studios with Drafting Boards and Lockers.
  - Teaching aids like overhead projector, slide projector, e-board, digitizer, plotter, Xerox facility..
  - Well equipped computer labs with latest software courses like Autocad, Revit.

#### 3.12 DEPARTMENT OF MODERN OFFICE PRACTICE:

- 3.12.1 This department offers unique programme to the extent that it combines conventional practices of a Secretarial job coupled with the Computer-aided management techniques and tools relevant to the Modern Office Practices and envisages competencies and skills oriented office personnel at the entry level in any sector of the Industry. The programme involves 8 weeks in-plant training during the fifth term and the course is of 3 year duration.
- 3.12.2 Logistics & Human Resources available in the following areas of expertise:
  - Capacity to teach and train in Modern Office Management Practices and Procedures.
  - Capacity to teach and train in handling of accounts & Banking Procedures.
  - Capacity to teach & train students in various aspects of the Tourism Industry.

- Capacity to teach and train in Computer Aided Office Management Practices including Word Processing & Accounting Softwares.
- Capacity to train in English Stenography skills and in English Typewriting Skills at varying Levels of speed including computerized typing with advanced softwares.

### 3.13 TRAINING & PLACEMENT SECTION.

Following are the function of this section:

- 1. Liasons with industries both in Goa and in the State of Maharashtra, Karnataka, Gujarat and Madhya Pradesh(Western Region) for the purpose of training and placement.
- 2. Placement of students of sandwiched Diploma Courses in Fabrication Technology & Erection Engineering and Food Technology Under BOAT (Board of Apprenticeship Training, Western Region) Mumbai.
- 3. Monitors & supervises the implant training programmes (six months Duration) at periodic intervals and gets the implant training evaluated with the help of Industry Personnel.
- 4. Arranges visits to industries for students during the academic term.
- 5. Arranges experts for talks on related Technical/General topics for staff/students.
- 6. Co-ordinates training programmes for teaching and non teaching staff of the Institute.
- 7. Conducts campus interviews for final year students and passed out students;
- 8. Maintain database of passed students, to be submitted at the request of the industries, for interviews at the Industry.
- 9. Provides implant training for students of non-sandwiched Diploma Courses during vacations to acquaint the students with industrial environment and the technical skills required to keep in touch with changing industrial scenario (student chapter for value based training in industries).
- 10. Also looks after a scheme to impart one year on-the-job training under the Apprentices (Amended) Act 1973 which pays a stipend of Rs.3542/per month for passed out unemployed students.
- 11. Looks after the maintenance of the institute vehicles. Also looks after the logistics and allotment of vehicles to staff and students.
- 12. Maintains and allots the Institute auditorium as per requisitions received from the various departments and for guest lectures, seminars, workshops, meetings etc.

## 4 **STUDENTS SECTION:**

- 4.1 Students section takes care of all students needs. In other words it acts as a bridge between students and the Institute. Everything right from the enrollment of new students to issuing of leaving certificate is done by the students section.
- 4.2 Students section is an integral part of the Institute since it holds all students records and also implements all the schemes on behalf of Government of Goa, for the students like post matric scholarship, minority scholarship, merit cum means scholarship, freeships and merit scholarships, bursary schemes and cyberage scheme.
- 4.3 Some of the other functions performed by the students section are issuance of temporary and permanent Identity cards, enquiries regarding admissions and any other students matter, preparation of case list of higher semester, preparing statistics, processing refunds and most important function of all that is maintaining students database for quick reference in hard copy and soft copy format.
- 4.4 The students section is in a continuous pursuit of making the life of students easier so that the students can focus on their academic without stressing much on administrative issues.

# 5 COMMUNITY DEVELOPMENT PROJECT:

5.1 All India Council for Technical Education endorsed the recommendation of the working group in technical education constituted in 1978 and resolved that a few selected Polytechnics, which have shown initiative in promoting interaction with the rural community and have the necessary capacity to undertake rural development work, be selected to act as focal points to promote transfer of technology to the rural villages and make contributions to rural development. This Polytechnic, were designated as "Community Polytechnics". 36 Institution all over the country were selected as Community Polytechnics in 1978-79. The Government Polytechnic, Panaji was selected for implementation of the scheme of Community Polytechnic in 1992-93 under manpower development training has been imparted to a large number of villagers in short-term training courses viz. Word-processing, typing, T.V. repair, radio repair, Cutting & Tailoring, Fitting and Carpentry. A six month course in Fashion Designing and four month course in Computer Applications are presently in progress. Efforts are in progress to start carpentry course for handicapped boys and hair - dressing & beauty - culture course for handicapped girls.

- 5.2 In transfer of technology, promotion of smokeless and portable chullas was done in collaboration with Rural Development Agency in villages of Odxel, Alto, Batim and Chimbel. Solar cooker demonstrations were done at Batim and Aivao villages.
- 5.3 Under Community Service, Career Guidance Camps for S.S.C. students have been conducted at Pomburpa, Pednem and Asonora, Nutrition Camps conducted at Carambolim and Batim and Medical Camps conducted at Carambolim and Mayem. Also two Blood Donation Camps were done.
- 5.4 The Polytechnic students are also involved in the Community Polytechnics activities for conducting socio-economic technological surveys of villages and in doing projects related to transfer of technology in rural villages.

# 6 INTEGRETING PERSONS WITH DISABILITY IN THE MAIN STREAM OF TECHNICAL AND VOCATIONAL EDUCATION:

6.1 Government of India has introduced in the Government Polytechnic, Panaji a scheme for the upliftment of persons with disability in our society through appropriate technical/vocational education subsidized under the scheme.

Under this scheme, persons having at least 40% disability may be admitted to one of the following groups.

- 1) Technical Diploma programmes of the Government Polytechnic, Panaji for those who have passed 10<sup>th</sup>/12<sup>th</sup> standard with at least 40% mark. 25 seats are reserved for this category, in different branches.
- 2) Vocational/Skill development short-term training programmes.

These are in areas relevant to this State leading to self-employment or as per the expressed needs of the potential job requirement/trade.

Both the above are subsidized to the extent of fees, accommodation, travel allowance, books, uniform, boarding, Scholarship etc.

## 7 FACILITIES/SERVICES RENDERED TO THE PUBLIC:

7.1 The Government of Goa has approved the Internal Resource Generation Scheme to Government Polytechnic, Panaji, wherein the various services are being rendered to Public/Institution/Factories/Organization etc. on the payment basis from the part of the profit service charges will go to Government for the utilization of infra-structure facilities. So also a part of profit generated is being paid as honorarium to the persons involved in the implementation of scheme. The five principal activities through which the resources can be generated are Testing, Consultancy, Research and Development Project Continuing Educational Programme and Production Activities.

#### 8 **PROCEDURE**:

#### 8.1 ADMISSION PROCEDURE AND CRITERIA FOR ADMISSION:

Since, the year 1997-98 the Government has introduced a Centralized Admission System for the various Diploma Courses in all the Government Polytechnics in Goa. The Directorate of Technical Education is publishing a Common Information Bulletin and Application form for Admission to this course, immediately after the declaration of S.S.C. results. The admission schedule to various Diploma Programme in all Polytechnics is published in the leading newspapers. The Criteria and the procedure for admission is amply clarified in the advertisement published by the Directorate of Technical Education.

#### 8.2 DIRECT ADMISSION FOR VOCATIONALSTUDENTS:

Students having qualification like the ITI/Vocational can seek admission directly to second year. Prospectus giving details of this admission channel is available with the office of the Directorate of technical Education.

#### 8.3 EXAMINATION PROCEDURES:

- a) All the Students admitted for various Diploma Programme in Engineering & Technology under Sandwich / Non Sandwich Programme from the Academic Year 2006-07 are covered under Semester Pattern Scheme.
- b) Board of Technical Education, Porvorim Goa conducts Examinations for Theory / Practical / Oral / Viva at the end of each Term.
- c) Diploma Certificate is awarded to the candidates passing successfully by the Board of Technical Education, Porvorim Goa as per Rule 15 of the Handbook on Rules & Regulations..
- d) Rules & Regulations framed by the Secretary, Board of Technical Education from time to time, are available with the Head of Department (Examination), who is a liason officer of this Institute in all matters concerning the Examinations.
- e) ATKT Rules have been partly amended under Semester Pattern and effective from May / June 2008 Board Examination.
- f) Government Polytechnic Panaji, conducts Two Numbers of Centralized Unit Tests, Average of two tests is considered for the Progressive Assessment Marks, each term.
- g) Students are also extended with facilities like Awarding of Grace Marks, Condonation Marks, Verification of Marks and Improvement in Test Marks.

- h) Board of Technical Education Porvorim also provides for Improvement of Class and Improvement of Qualification.
- i) A student unable to complete the diploma within double the duration of the diploma Programme is issued with the marksheet indicating the subject, he / she has passed and exited from the system.

#### 8.4 LIBRARY PROCEDURE:

The Institute has well equipped library with a branch at Women's Wing. The Library timings are 9.00a.m. to 5.15 p.m. The entry to library premises is restricted to hall ticket holders only. The ground floor of library is used as reading room-cum-reference section. The bonafide hall ticket holders can use the section for reading reference Books/Periodical/Magazine etc. The Books/Periodicals/Magazine in the Reading and Reference Section are issued against hall tickets. The users shall collect library tickets while leaving the library by returning Books/Periodical/Magazine used for reference. In addition to above, each student is allowed to take two textbooks for home reading. The student can return the books within the period of one week and he/she is supposed to return the books within one week in the stacking section situated on the 1<sup>st</sup> floor of the library. The library is also having the sets of books under the Book Bank Scheme. These sets are issued to the bonafide poor and deserving students. The student has to apply for the set of books in the prescribed proforma.

#### 9 SCHOLARSHIP/FREESHIPS AND PRIZES:

#### 9.1 SCHOLARSHIP/ FREESHIP:

In Common Information Bulletin for admission to various Diploma Course the information about Scholarship/Freeship available in the Government Polytechnic, Panaji have been incorporated in the part II of the Bulletin.

#### 9.2 PRIZES:

The Institute awards various prizes to meritorious and deserving students from the donations instituted by individual donors/organizations.

#### 10 **REFUNDS:**

10.1 The information regarding the refund of fees and deposit are also incorporated in the Common Information Bulletin for admission to various diploma courses published by the Directorate of Technical Education.