

## **“An overview of MultipleLabs™ courses for TRAINING / DISSERTATION”**

### **Objective**

To prepare qualified high school graduates /post graduates /PhDs to become trained engineers, lab technicians, Q.C/Q.A executives, research scientists, validation specialists, entrepreneurs etc. ready for immediate employment/self-employment.

To provide students with practical exposure & technical knowledge and skills that will make them confident to work as professionals in the industry and other organizations related to Engineering, science and Technology.

### **Vision**

To make testing and research affordable to the common man /Doctors/ Scientists / SME's leading to make the whole world a better place to live by offering all kinds of Research, Testing & Training solutions for the Community @ the most affordable cost by bringing all the solutions for Pharmaceutical, Bio-tech, Clinical Diagnostics, Health Care, Pollution Control, Water testing, Beverages testing, Engineering/Material Science etc. under one roof.

## About Courses

### Trainings

Training Program for polytechnic /graduates /post graduates /doctorates is a career orientation program which enhances employment /self-employment opportunities. This training will help fresher in achieving numerous career objectives. It will also add value to student's profile. It is important aspect is that it gives an edge over the other un-trained students/candidates in the market for getting placed in Indian Co.'s / MNCs. It will be a very technically and practically enriching exposure.

### Dissertation (research work)

Research and experimental development is formal work undertaken systematically to increase level of knowledge, including knowledge of humanity, culture and society, and the use of this stock of knowledge to devise new applications. It is used to establish or confirm facts, reaffirm the results of previous work, solve new or existing problems, support theorems, or develop new theories.

The purpose of research is to discover answers to questions through the application of analytical & scientific procedures to gain familiarity with a phenomenon or to achieve new insights into it to portray accurately the characteristics of a particular individual, situation or a group, to determine the frequency with which something occurs or with which it is associated with something else, to test a hypothesis of a causal relationship between variables.

**Dissertation provides evidence of a number of key competencies, such as critical analysis, written communication, project management and the ability to work on their own initiative. These competencies are keys to a wide range of jobs opportunities.**

The following are the categories of the services we provide:

**I. Certificate Training Program on Spectroscopy / Chromatography: (1 day/ 3days/ 30 days):**

**Fees: For 1 day- Rs. 500/-  
For 3 days: Rs. 2000/-  
For 30 days: Rs. 8000/-**

1. Basic Details
  - a) Introduction
  - b) Principle
  - c) Instrumentation
2. Practical Exposure
3. Operations/ Troubleshooting
4. System Suitability
5. Applications

**II. HPLC & UV with hand on practice: Fee Rs.5000/- [Theory, Hands on Practicals, Interview Orient Material, Certificate] – 10 Days**

1. Instrumentation & Operation
2. Calibration & Maintenance
3. Trouble shooting & System Suitability Parameters
4. Method Development & Validation (Theory)

**III. Quality Assurance Basic Training & Documentation – Fee Rs. 8000/- [Theory, Interview Orient Material, Certificate] – 15 Days**

1. Quality Assurance General Concept & Responsibility
2. Validation and Qualification
3. Preparation Maintenance and Distribution of Documents( Standard Operating Procedures, Standard Testing Procedures, General Testing Procedures , BMR-Batch Manufacturing Records and Specification)
4. Overview and Importance applications of the Following Guidelines (GMP, GLP, ICH and CFR etc.)
5. Good documentation practices & Classification of Documents
6. Drug Master Files (DMF)
6. Understanding of analytical methods, procedures and implementation in manufacturing sites from QC perspective
7. Handling of out of specifications
8. Understanding various pharmacopeia requirements
9. Handling of Data and Audits

**IV. Overall Pharmaceutical (Quality Control) Laboratory Training: Fee Rs.8000/- [Theory, Hands on Practicals, Interview Orient Material, Certificate] – 40 Days**

1. Pharmaceutical industry: overview & Introduction to Quality control Laboratory
2. General lab equipments

3. Introduction to analysis
4. Good Laboratory Practice
5. Laboratory safety
6. Loss on Drying
7. Conductivity meter
8. pH meter
9. Melting point apparatus
10. KF Titrator
11. Introduction to spectroscopy
12. Ultraviolet-visible spectroscopy
13. Chromatography Introduction - Paper, TLC & Column
14. HPLC - Instrumentation, Operation, Calibration, Maintenance, Trouble shooting
15. Method development & Validation (Theory)
16. We can provide Academic Projects for M.Sc and B.Pharm, M.Pharm students
17. Handling Wet analysis and Preparation and measurement of Volumetric Solutions.
18. Introduction to Stability Studies and Its Importance of various drugs.
19. SOP & STP preparation
20. Basics of cGLP/cGMP.
21. Understanding various pharmacopeia requirements.
22. Handling of Data and Audits
23. Glossary
24. Resume preparation
25. Mock Interview and Personality development. (The Pharmaceutical Quality Control Analyst Certificate is awarded upon successful completion. At the beginning of the course give the Course Material.)

**V. Analytical Method Development & Validation by HPLC & GC (Theory): Fee Rs.10000/- [Theory, Interview Orient Material, Certificate] – 10 Days**

1. Concept of Method development
2. Method development by HPLC
3. Method development by GC
4. ICH Guidelines
5. Assay , Dissolution, Content Uniformity & Related substances Validation
6. Cleaning Validation
7. Preparation of Protocol & Report
8. Method validation by HPLC
9. Method validation by GC
10. Interview based training

**VI. Dissertation (Research Work)**

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#### **Course content:**

1. Fundamentals
2. Principles of operations
3. Installation qualifications
4. Operation qualifications
5. Installation and assembling
6. Operations/ trouble shooting
7. Precautions
8. Calibration
9. System suitability/ validation
  - a. Method validation
  - b. System validation
10. Regulatory requirements (WHO, FDA, etc.)
11. Applications
  - a. Clinical Diagnostics
  - b. Pharmaceuticals
  - c. Environmental & Pollution Control
  - d. Water Testing
  - e. Dyes & Intermediates
  - f. Agrochemicals

- g. Food & Beverages
- 12. Carrier Guidance and Entrepreneurship
- 13. Test/ Exam/ Certification

**Course Duration** - 1 month / 3 months

**Charges:** Depends on the type of Research Work and number of people.

**Eligibility:**

Candidates with following qualification can apply for the courses:

1. Graduates (Engineering and Science)
2. Post Graduates (Engineering and Science)
3. Scientists

**Employment Guarantee:**

10% employment /self employment opportunity guaranteed from our Company or our customers.

**About Us:**

**MultipleLabs™** is a sister co. of flagship Company **Analytical Technologies Limited**, which is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand. Our company is an ISO: 9001 Certified Company engaged in Designing, Manufacturing, and Marketing, providing services and certified training for the analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science and general Laboratory instrumentation.

Analytical Technologies, India has across the Country operations with at least 6 Regional Offices, 9 Branch Offices & Service Centers. We have 5 Strategic Business Units (SBU) listed Below, Committed to focus in varied interests of our customers.

## Analytical Technologies Limited

Analytical Bio- Med

Clinical Diagnostics

HPLC Solutions

Analytical Instruments Solutions

MultipleLabs™

ATL invented, **BioLC-** a liquid Chromatography technology for Hospitals / Doctors / pathologists which is emerging as the only reliable technology for diagnosis of not only the rare diseases, metabolic disorders, drug abuse, etc. but also for routine diagnosis of Diabetes, Thalassemia, Sickle cell etc.

ATL is the only company in the world to offer entire range of Liquid Chromatography products, like Nano, Micro, Analytical, Bio, Semi-Preparative, and Preparative and process HPLC Systems, and also, offering services, trainings and consumables for **any make of HPLC Systems.**

## Terms & Conditions

1. Company reserves rights to improve / add/ delete/ modify the contents/ technical specifications of the courses without prior notice.
2. Fees will not include accommodation, transportation, food allowances, etc.
3. Any special accessories, Chemicals, consumables or analysis/research tools used by the candidates for research/testing are not included in the fees.
4. Test Results declared from **MultipleLabs™** will be the final.
5. Taxes on the course fees would be applicable @ actual as per the government norms.
6. Commercial terms are subject to Vadodara jurisdiction.
7. We need at least 4-6 weeks prior bookings with advance payment to mobilize resources like technologies /systems / instruments for practical, trainers, and facilities etc. for organizing batches/sessions of trainings.
8. All the payments to be made in the name of **Analytical Technologies Limited** by Cheque /DD /RTGS /Wire Transfer only.

**Bank details:**

**1.**

**Analytical Technologies Limited**

Axis Bank –Baroda (Race course circle Branch)

Account no.911020046253373

IFSC Code: UTIB0000013

Micro Code: 390211002

**2.**

**Analytical Technologies Limited**

ICICI Bank –Baroda (Race course circle Branch)

Account no.000305009666

IFSC Code: ICIC 00 00 03

Regards,

For **MultipleLabs™**

(An entity of **Analytical Technologies Limited**)

For Booking,

Contact: Ms. Heena Parmar (Cell: 00919377532873)

For Technical Query,

Contact: Mr. Vikas Patel (Applications Chemist) (Cell: 00919327344454)

For General Query,

Contact: Ms. Rajeshwari (General Manager) (Cell: 00917878031942)