

Packaging for Better Living



भारतीय पैकेजिंग संस्थान
Indian Institute of Packaging

An autonomous body under the Ministry of Commerce & Industry, Govt. of India

ADMISSIONS OPEN

M.S. : Master in Packaging Technology

M.Sc. : Master in Packaging Technology

PGDP : Post Graduate Diploma in Packaging

CPEC : Certified Packaging Engineer Course



PROSPECTUS

2022

CONVOCAATION 2022



Vision

To make Indian Institute of Packaging a World Class Centre of Excellence with Sustained Commitment from the Stake Holders.

To develop Close International Relationship with Worldwide Packaging Fraternity.

To make India a Focal Point for Contemporary Developments in Art, Science, Technology and Engineering in the Field of Packaging.

Quality Policy

The Quality Policy of Indian Institute of Packaging is to provide assured tests and measurements at all times conforming to the specifications laid down in National, International or customer specified standards.

We believe in and strive for the involvement of every member of the Institute in evolving and implementing an effective and efficient Quality Assurance Programme as laid down in ISO/IEC 17025:1999.

We shall endeavour meticulous implementation and compliance with the Quality Manual and build an attitude essential for a prevention oriented work culture.



Indian Institute of Packaging (IIP) is an autonomous body in the field of packaging and working under the administrative control of the Ministry of Commerce and Industry, Government of India. The Institute was established on 14th May, 1966 with its head quarter and principal laboratories at Mumbai. The Institute has set up its first branch office at Chennai in 1971, followed by Kolkata, Delhi, Hyderabad, Ahmedabad and Visakhapatnam in 1976, 1986, 2006, 2017 and 2021 respectively. In addition, two more Centres are to be made operational at Bengaluru and Guwahati.

Dr. Tanweer Alam

Director (I/c)
Indian Institute of
Packaging

The main objective of the Institute is to promote the export packaging market by way of innovative design and development as well as upgrade the overall standards of packaging in the country. The Institute is involved in various activities like Testing and Evaluation of Packaging Materials and Packages, Consultancy Services and Research and Development related to packaging in addition to providing Training and Education in the field of packaging.

The Indian packaging industry has grown leaps and bounds not only in size and volume, but in quality as well. Further, globalization has encouraged the industry to be more competitive in the world markets. Today, the industry is growing at an annual rate of 15% as against 5-6% in the world. This has also created a great demand for packaging professionals in our country. Consequently, training and education have become the need of the hour to improve the overall standards.

To this effect, Indian Institute of Packaging started the Three months full time Certificate Course in Packaging – Intensive Training Course (ITC) in the year 1968 which was specially designed to give in depth knowledge on various aspects and trends in packaging. This Certificate Programme in Packaging Technology is Nationally and Internationally recognised qualification imparting a broad understanding of the principles, materials, processes, systems and other elements of packaging production and use.

In 1985, the Institute started a two-years full-time Post-Graduate Diploma in Packaging (PGDP) in Mumbai which is considered a benchmark by the industry. This course is open for all Graduates in Science, Technology, Engineering and allied fields. The admission is through an all India entrance examination conducted in June every year in all metro cities. Due to an increase in demand of Packaging Professionals, the Institute initiated this course in Delhi, Kolkata and Hyderabad as well. Today, this course is considered as one of the most popular programmes the world over.

On similar lines, the Institute started an eighteen months Diploma in Packaging through Correspondence (DPC) course designed exclusively for working personnel. Further to augment demand, IIP has increased the intake of candidates from academic year 2017-19 with commensurate improvement in infrastructure.

In the last academic year, the Institute has started M.Sc. programme at Delhi centre in collaboration with Guru Gobind Singh Indraprastha University, Delhi & M.S. in Hyderabad in collaboration with Jawaharlal Nehru Technological University Hyderabad (JNTUH). Chennai centre has also started one year online programme entitled "Certified Packaging Engineering Course"(CPEC) for working and fresh engineering graduates.

Besides the educational programmes, the Institute regularly conducts several short term Programmes, National Seminars and Conferences in Packaging. These are typically of one day to one week duration. These programmes are designed for working Executives as well as for Professionals needing to update their knowledge in Packaging. The Institute also conducts collaborative, onsite programmes for training and testing titled "In-Laboratory Hands-On Training for Testing and Evaluation of Packages".

I am confident that both the working & fresh Engineers who would be opting for this course as their career option will have a brilliant and bright future.

My best wishes to all the new aspirants who would be joining the illustrious IIP family.

Dr. Tanweer Alam

GENESIS OF PACKAGING EDUCATION

It was in 1985, that we decided to take a step forward in the direction of Packaging Education. We are second in the world, besides USA, to start two years Post Graduate Diploma in Packaging. With the inputs of expert educationists under the chairmanship of Dr. D.V. Rege, then Director of University Department of Chemical Technology, Mumbai (now ICT) with Dr. V. Gupchup, then Principal of Victoria Jubilee Technical Institute, Mumbai (now Veermata Jijabai Technological Institute), Dr. Ravi Talwar; Mr. A. S. Athale; Dr. K. N. Kaul, Technical Director of M/s. Roche Products; Dr. R. Jayaraman, Vice-President of M/s. Britannia Industries Ltd. and others, the curriculum of two years full time Post Graduate Diploma in Packaging was developed.

Since packaging is an inter-disciplinary subject, the first semester includes exposure to subjects like Mathematics, Physics, Chemistry, Mechanical and Electrical Engineering.



Packaging technology is then introduced with detail and elaborate coverage on various packaging media, which includes paper and paperboard, glass, metals, plastics and composites. Similarly, laboratory practical training and visit to packaging converters and user industries are made part of the curriculum to expose students to the practical aspects of the subject.

subjects such as Production Planning and Control, Total Quality Management, Industrial Engineering, Materials Management, Marketing and Financial Management are also covered.

In an organisation, since a packaging professional plays a vital role, management

The post graduate diploma course commenced in 1985 and the curriculum is regularly reviewed with addition of new subjects. Some of the subjects recently included are Eco-Regulation, Computer Aided Design & Mould Design and Communication Skills, which now form a part of the syllabus. We have a separate computer laboratory for Post Graduate Diploma students equipped with necessary software for their training and use. Experienced and dedicated faculty trains the students in CAD.

In the last academic year, the Institute has started M.Sc. programme at Delhi centre in collaboration with Guru Gobind Singh Indraprastha University, Delhi & M.S. in Hyderabad in collaboration with Jawaharlal Nehru Technological University Hyderabad (JNTUH). Chennai centre has also started one year online programme entitled "Certified Packaging Engineering Course" (CPEC) for working and fresh engineering graduates.



We have been conducting three months certificate course since 1968. The course is accredited by Asian Packaging Federation of which IIP is the founder member and endorsed by World Packaging Organisation. The course is open to overseas participants as well. Both these courses being full time, a need was felt to introduce a Distance Education Course especially for working people who cannot attend the full-time programme. In 1996, we started the Distance Education Course for many aspirants who are working in the industry and could not attend our full time courses to improve their professional qualification.

We are in the 26th year of Distance Education Programme, which is of 1½ years duration. This course is also accredited by

Asian Packaging Federation and is open to participants from any country. We have been receiving overwhelming response for this course. For overseas students of this course, we conduct the examination in their city. Over the years, we have witnessed a significant growth in the number of students enrolling in this course. They come from various professional and educational backgrounds.

We started with student in-take of 20 for the 2-year Post Graduate Diploma in Packaging and today, our intake is raised to 500. Appreciation of this course by the industry is seen in the responses we receive for the campus interviews, in which almost all of the students are placed within a few days. The value of our course is recognised through repeat visits of many corporate bodies and MNCs for campus placement.

All our students are respectfully placed with exciting job offers. Recently, overseas organisations have flown down and recruited our students.

The success story of these programmes is due to the efforts by the eminent faculty, who support the educational activities; from renowned educational institutions, the industry and many corporate bodies, through industrial visits and training of our students.

Packaging is one of the most dynamic fields and is sensitive to technical and commercial trends. Packaging trends need to be quickly identified, studied and exploited to survive in competition. Globalisation has brought consumers and producers closer than ever before. The role of packaging in modern methods of distribution through super markets and malls has, therefore, assumed great importance. Thus, the demand of this subject makes our job challenging; however, we always like challenges and endeavour to succeed.



Dr. Babu Rao Guduri
HOD T & E Department

ABOUT INDIAN INSTITUTE OF PACKAGING

The Indian Institute of Packaging (IIP) is a national apex body which was set up in 1966 by the packaging and allied industries and the Ministry of Commerce, Government of India, with the specific objective of improving the packaging standards in the country. The Institute is an autonomous body working under the administrative control of the Ministry of Commerce.



The Institute endeavours to improve the standard of packaging needed for the promotion of exports and create infrastructural facilities for overall packaging improvement in India. This is achieved through the Institute's multifarious activities which are today, in line with those of premier packaging institutes the world over. The institute aims to make India a focal point for contemporary developments in Art, Science, Technology and Engineering, with respect to the field of Packaging.

The Institute began in a very humble way, with an office at Mumbai. It has now expanded, with its Head Quarters at Mumbai and centres located at Delhi, Kolkata, Hyderabad, Chennai and Ahmedabad.

The major activities of the Institute are:

- Testing, Certification & Consultancy
- Research & Development
- Training & Education

The other promotional efforts include exhibition and awards, information services and publications, library and database services.

The Institute has linkages with International organisations and is a founder member of the Asian Packaging Federation (APF); member of the Institute of Packaging Professionals (IOPP), USA; the Institute of Packaging (IOP), UK; Technical Association of Pulp and Paper Industry (TAPPI), USA and the World Packaging Organisation (WPO).



Convocation Gathering



Lounge Area



Convocation 2022

The Indian Institute of Packaging has helped many developing countries in the promotion of packaging through projects carried out for prominent International bodies like the United Nations Industrial Development Organisation (UNIDO), International Trade Centre (ITC), the Commonwealth Fund for Technical Cooperation (CFTC) and the European Union (EU).

The Institute has successfully completed International residential training programmes for APF and WPO in the years 2005, 2006, 2010, 2012 and 2013.

At present, the Institute has members in varied categories such as Patron Members, Overseas Members, Life Members and large number of Ordinary Members who regularly use the expertise and the services available in the laboratories.

Exhibition and Design

This division organises exhibitions on a regular basis.



Permanent Exhibition

INDPACK, the Annual National Exhibition organised at various cities around the country, offers the Packaging industry an opportunity to display development in the machinery and material sector.

INDIAPACK International, a collaborative effort with exhibition organisers from overseas, organised once in 2/3 years.

The institutes also organise industry participation in international exhibitions.

The Permanent Exhibition Centre in Mumbai, Delhi, Kolkata, Chennai and Hyderabad offer display outlets for the products of the industry. Industrial designs are developed as per client's requirements.



Convocation 2022



Convocation 2022

Awards

The Institute, while maintaining its unique position as an internationally reputed organisation responds to the needs of the country and at the same time acts as a window for India's capabilities in Packaging Science and Technology.

INDIASTAR Awards

IIP has instituted the 'INDIASTAR' Awards, the National award for Excellence in Packaging in the year 1972 to promote and encourage excellence in packaging design, innovation and sustainability, once every two years. Over a period of time, this award programme is firmly entrenched and is most popular as the premier event for India's packaging fraternity.



This biennial INDIASTAR Award is the recognition of excellence in packaging development for functional design and appeal. The INDIASTAR Contest is also open to students under the Student Category.

PACMACHINE Awards

The PACMACHINE Award symbolises achievement in the field of packaging and converting machinery, material handling and testing equipment.

Winning INDIASTAR entries may then compete for the ASIASTAR and the WORLDSTAR Awards.

Information and Publication

This division provides information related to the packaging industry, in addition to publishing various monographs and textbooks, seminar papers and directories, periodically.

'Packaging India', the official Journal of the Institute published six times a year, is an invaluable source of information for the packaging industry. It is mailed free of cost to members of the Institute, packaging and related institutions all over the world. Individual subscriptions are available on request.

The Institute's publications are available at the Head Office and the Regional Centres.



Canteen



Administrative Block

Library and Internet Services

IIP is privileged to have one of the best reference's libraries in the world, with books, International periodicals, bound volumes of journals; besides a large number of

reports, National & International standards, database on products and materials along with reprographic facility also being available. Library facilities are extended to the members of the Institute, all students and faculty.

The IIP library has a rich collection of nearly 7000 textbooks besides several packaging related National and International standards from different countries and organisations on materials, methods and systems, testing and quality control etc., besides having a number of seminars, technical reports and dissertations. The information input is also augmented through over 50 technical journals obtained from various sources in the world, on a regular basis.

INDUSTRY CONSULTING SERVICES

The Institute undertakes self-sponsored and industry participated applied projects covering different aspects of standards, substitutions of packaging materials, improvements in the designs of packages for a range of products including agricultural produce, marine products, processed food, pharmaceuticals, chemicals, consumer durables, light and heavy engineering products etc. Export packs for fresh fruits and vegetables are developed which include bulk and consumer packs. Consumer and bulk export packs with specification details are developed for pre-cut frozen fruits and vegetables.

Consultancy services

- Package design and development



Library



Library



Classroom



Equipped Laboratory

- Cost-effective packaging for domestic and overseas distribution
- On-the-spot advisory visits
- Techno-economic feasibility studies
- Market research and survey reports
- Projects profile with guidelines for machinery selection, computing investments and working capital as well as establishing economic feasibility.

Some of our esteemed clientele include MNC's, entrepreneurs, government departments, packaging material users and converters.

Global Initiatives

To meet the growing demands from industrial units, in both, the organised and unorganised sector for qualified technical manpower, the Institute introduced 2-year programme leading to a Post Graduate Diploma in Packaging (PGDP) in 1985. The course is designed to equip candidates with all the facets of packaging activity.

Other courses being offered by the Institute include the Graduate Diploma in Packaging through correspondence - a Distance Education Programme (DEP) 1996, recognised by the World Packaging Organisation (WPO) and accredited by Asian Packaging Federation (APF). The 18-month course, designed primarily for working professionals is open to industry personnel and to students in India, the Asia Pacific Region and other countries.

A 3-month Certificate Course in Packaging introduced in 1968 is conducted at the Head Office and at the Regional Centres, entries of which are on a first-cum-first-served basis. The course is also open to overseas participants deputed by their Governments under various schemes. This course is endorsed by the World Packaging Organisation (WPO).

IIP is probably, the first Packaging Institute in the world to hold a training programme for women entrepreneurs. The 1-month Entrepreneurship Development Programme is organised once a year.

Short Training Programmes, Seminars and Conferences of 1-day to 1-week duration are organised by the Head Office and the Regional Centres throughout the year in various parts of the country, specially designed for working executives as well as professionals needing to update their knowledge in the form of executive development programmes.

Residential Training Programmes – The Institute conducts Residential Training Programmes at its Campus in



Training Programme



Session in Progress

Mumbai. These programmes are designed to meet the specific requirements of the organisation / industry.

TESTING AND EVALUATION SERVICES - N A B L ACCREDITED LABORATORIES

Over the last 56 years, the Indian Institute of Packaging has been able to establish well-equipped laboratories for testing of various packaging material and packages at its principle laboratory at Mumbai and also its branch offices at Chennai, Kolkata, Delhi and Hyderabad, with continuous efforts towards upgradation. Financial assistance of the Ministry of Commerce and Industry, Government of India is awarded. Today, the Institute is proud to announce that the laboratory has got the facility for testing over 300 parameters covering different areas like mechanical, chemical and physico-chemical properties of packaging material and packages.

Laboratories at the Head Office and regional centres extend testing facilities to the industry for domestic distribution and export, as per National and International Standards like the Bureau of Indian Standards (BIS), International Standards Organisation (ISO), British Standards (BS), American Society for Testing Materials (ASTM) and others. IIP also issues UN Certification for export packages for hazardous goods and equipment calibration standardisation certificates.



Universal Testing Machine

equipment calibration standardisation

Laboratory

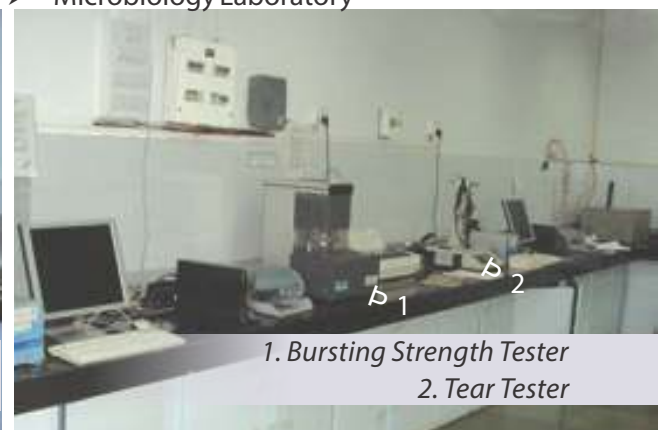
- The division comprises of the following laboratories:
- Consumer Package Laboratory
- Material Testing Laboratory
- Optical and Barrier Properties Laboratory
- Chemical Laboratory
- Transport Laboratory

Activities

- Activities carried out include:
- General chemical and material testing
- Testing for transport worthiness of packages
- Testing of packages for the carriage of dangerous goods for export – IMDG and ICAO.
- In-laboratory training programme
- Training programme on testing and quality control
- Testing based consultancy projects
- Microbiology Laboratory



1. Tear Tester
2. Digital Puncture Resistance Tester



1. Bursting Strength Tester
2. Tear Tester

POSTGRADUATE DIPLOMA IN PACKAGING

It was in 1985 that IIP decided to take a step forward in the direction of Packaging Education to meet the growing demands from industrial units, in both, the organised and unorganised sectors for qualified technical manpower. IIP is second in the world, besides USA, to start 2-year Post Graduate Diploma in Packaging. With the inputs of expert educationist under the chairmanship of Dr. D. V. Rege, then Director of UDCT with Dr. V. Gupchup, then Principal of VJTI; Dr. Ravi Talwar; Mr. A. S. Athale; Dr. K. N. Kaul, Technical Director, M/s. Roche Products; Dr. R. Jayaraman, Vice-President, M/s. Britannia Industries Ltd. and others, the curriculum of 2-year full time Post Graduate Diploma in Packaging was developed.



Convocation - 2022

Since packaging is an inter-disciplinary subject, the first semester includes exposure to subjects like Mathematics, Physics, Chemistry, Mechanical and Electrical Engineering.

Packaging Technology is then introduced with detail and elaborate coverage on various packaging media, which includes Paper and Paperboard, Glass, Metals, Plastics and Composites. Similarly, laboratory practical training and visit to packaging converters and user industries are part of the curriculum to expose the students to the practical aspects of the subject.

Since a packaging professional plays a vital role in an organisation, management subjects are also included, such as:

- Production Planning and Control
- Total Quality Management
- Industrial Engineering
- Materials Management
- Marketing and Financial Management



An Updated Library



HPLC Equipped Laboratory

The Post Graduate Diploma course commenced in 1985 and the curriculum is regularly reviewed with addition of new subjects. Some of the subjects recently introduced are eco-regulation, computer aided design & mould design and communication skills, which now form a part of the syllabus.

IIP has a separate computer laboratory for Post Graduate Diploma students, equipped with necessary software, for their training and use. Experienced and dedicated faculty trains the students in CAD.



Convocation - 2022

A large number of factory visits are undertaken in line with the curriculum. These provide the students with practical experience with respect to the packaging industries.

The fourth semester is dedicated to industrial training. Every student is placed in an industry for hands-on practical training. At the end of this semester, a 'Campus Placement' drive is conducted at the Institute in Mumbai, and is open for students of all regions of the Institute. IIP takes pride to convey that it takes effects for 100% placement of students, to date.

The details of the subjects taught in each semester along with the teaching and examination scheme is as detailed in the Tables ahead.

The students are encouraged to showcase their cultural and extracurricular abilities through the yearly 'PACKFEST' programme. It comprises of a series of cultural and technical competitions related to packaging. This festival was introduced at the 24th Batch Convocation and is continued till date.



Packfest - 2018



Packfest - 2018



Packfest - 2019



Packfest - 2019



STUDENTS MERIT AWARD

On the occasion of the 'Silver Jubilee' convocation of the Post Graduate Diploma in Packaging programme (PGDP), it was planned to create a 'Students Merit Award Fund' for the educational activities and the interest amount so generated will be spent every year for making MEDALS for different categories. Thus, all contributions are for perpetuity.

The main objective in awarding Platinum, Gold, Silver and Bronze medals to meritorious students is to motivate the students of Post Graduate Courses and as well as Distance Education Programme (DEP).

The medals will be awarded to the students in the following manner:

- Gold Medal – Overall Top Scorer
- Silver Medal – Overall Second Scorer
- Bronze Medal – Overall Third Scorer

The three toppers of the PGDP from each region will then compete for the topper amongst them all, for a Platinum Medal. A competitive examination on 'packaging' will be held at Mumbai every year before the convocation.

All medals have been sponsored by leading packaging companies and the contribution will be a onetime contribution towards the Students Merit Award Fund. The medal would have the IIP Logo on one side and the logo of the sponsoring company will be embossed on the other side.



SPONSORS

List of Sponsors for **Students Merit Award** for Post Graduate Diploma in Packaging (PGDP) and Distance Education Programme (DEP).

Platinum Medal



	Gold Medal	Silver Medal	Bronze Medal
Mumbai	 Parksons Packaging Limited	 Associate Capsules Group	 Electronic Devices
Delhi	 Hindustan Adhesives Limited	 Micro Mechanical Works	 Triveni Polymers Limited
Kolkata	 Manjushree Technologies Limited	 Tata Tinplate Limited	 Avery Dennison
Hyderabad	 ITW Limited	 Ecobliss Limited	 Shivshakti Timber Works
DEP	 DIC Limited	 Hindustan Tin Works Limited	 Perks Engineering

SUCCESS STORIES...

- Placement in leading MNCs, FMCG, converter industries, KPO, food and pharmaceutical companies.
- All round professional and personality development.
- Industry oriented teaching.
- Green campus, reputed faculty, testing laboratories and excellent hostel facility at Mumbai.
- A unique Resource Centre to facilitate placements all over the world. Leading companies, across the world from various disciplines of packaging come for campus placement.



Annual Convocation

EMINENT REGULAR RECRUITERS

The success continues with a number of eminent recruiters as listed here.

Abbott Laboratories

Agro Tech Foods Limited

Alpla Limited

Atul Limited

Avery Dennison (I) Pvt. Limited

Biostadt India Limited

Castrol India Limited

Cavinkare Limited

Chainalytics Pvt. Limited

Chandras chemical Entp. Pvt. Limited

Chep India Pvt. Limited

Coca-Cola India Inc.

Creative Polypack Limited

Cummins India Limited

Dabur India Limited

Dolcera ITES (P) Limited

Dr. Reddy's Laboratories Ltd.

Dream Brakes Pvt. Limited

Eltete India TPC Pvt. Limited

Emami Boitech Limited

Emami Limited

Ferrero India Pvt. Limited

Flint Group India Pvt. Limited

Flipkart Pvt. Limited

Godrej Consumer Products Limited

Haldirams Foods International Pvt. Ltd.

Hawkins Cookers Limited

Heinz India Limited

Himalaya Drug Co. Limited

Hindustan Unilever Limited

Integrated Plastics Packaging Inc.

IPCA Limited

ITC Limited

ITW Signode India Limited

Kansai Nerolac Limited

Kraft Foods Pvt. Limited

Kris Flexipacks Limited

L'Oreal India Pvt. Limited

Larsen & Toubro Limited

Lupin Limited

EMINENT REGULAR RECRUITERS

The success continues with a number of eminent recruiters as listed here.

Manjushree Extrusions Limited

Manohar Pkkg. Pvt. Limited

Mapro Foods limited

Marico Limited

Maruti India Pvt. Limited

Mondelez India Foods Pvt. Ltd.

Mersheys India Pvt. Limited

Mylan Laboratories

Nestle India Limited

Parksons Packaging Limited

Pearl Polymers Limited

Perfetti Van Melle (I) Pvt. Limited

Pidilite Industries Limited

Piramal Enterprises

Piramal Healthcare Inc.

Piramal Healthcare Limited

Polygel Technologies (I) Pvt. Limited

Ranbaxy Limited

Reckitt Benckiser (I) Limited

Saint Gobain

Sealed Air India Pvt. Limited

Skaneem Interlabels Limited

Strides Specialities Pvt. Limited

Stylo Graphic Imaging Pvt. Limited

Surface Graphics Pvt. Limited

Switz Foods Pvt. Limited

Tata Global beverages Limited

Tulsian Group of Inds. Limited

TVS Motor Company

Uflex Limited

United Phosphorus Limited

Walmart India Limited

Wipro Consumer Care & Lighting

Wockhardt Limited

THE INSTITUTES' FACULTY

Dr. Tanweer Alam

Director (I/c)
Indian Institute of Packaging

Mumbai

Dr. Babu Rao Guduri, HOD: T & E Department
Dr. Badal Dewangan, HOD: R & D Department
Mr. T.M. Mallik, Dy. Director, Laboratory Department
Mr. S. K. Juikar, Dy. Director, Consultancy Division
Mr. P. G. Meshram, Dy. Director, Laboratory Department
Dr. Hemlata R., Dy. Director, T & E Department
Mr. Rahul Tirpude, Dy. Director, Design Division
Mr. A. S. Ravi, Asst. Director, Laboratory Department
Mr. S. Dalvi, Asst. Director, Budgets & Accounts Division
Mr. Anil Moule, Asst. Director, R & D Department
Mrs. Vaishali Ravandale, T. O., Laboratory Department
Mrs. Poonam Kanojia, T. O., Laboratory Department
Mr. Harshad M., Tech. Assistant, Laboratory Department
Mr. Nitin Raibole, Tech. Assistant, T & E Department
Mr. S. R. Dhopte., Tech. Assistant, Laboratory Department

Ahmedabad

Dr. Amit Singla, Joint Director & Regional Head
Mrs. Forum A. Badani, Asst. Director
Mr. R. G. Butani, Technical Officer
Mr. Arpit Badani, Technical Assistant
Mr. Jaysukh G. Chandpa, Tech. Assistant

Delhi

Dr. Nilay Kanti Pramanik, Deputy Director
Mr. Tushar K. Bandyopadhyay, Assistant Director
Dr. Atul Jadhav, Assistant Director
Mr. Dinkar Joshi, Technical Assistant
Mr. Saurabh Tripathi, Technical Assistant
Mr. Jetendra Upadhyay, Technical Assistant
Mr. Sourabh Ghosh, Technical Assistant

Chennai

Mr. Pon Kumar, Deputy Director & Regional Head
Mrs. Shweta Shetty, Assistant Director
Mr. V. Premraj, Technical Assistant
Mr. Sachin P. Adakane, Technical Assistant

Kolkata

Mr. Bidhan Das, Deputy Director & Regional Head
Mr. R. T. Shukla, Assistant Director
Mr. Rishu Gautam, Assistant Director
Mr. Alok Basak, Technical Officer
Mr. Saroj Meher, Technical Officer
Mr. Rahul Maheshwari, Technical Assistant

Hyderabad

Mr. N. Nataraj, Deputy Director & Regional Head
Mr. Manipati Madan Mohan, Assistant Director
Mr. S. V. Ramesh, Technical Assistant
Mr. Nallavalli Nandakishore, Technical Assistant
Mr. Balakishan D., Technical Assistant

The Guest Faculty

The guest faculty are invited from reputed institutes. Some of them are as highlighted below.

Mumbai

Indian Institute of Technology (IIT)
Mumbai University
Usha Gandhi Pravin College of Management
Shri Vile Parle Kelavani Mandal Education Institute
V.K.Krishna Menon College of Commerce &
Economics
Tolani College of Commerce
Thakur College Of Engineering and Technology

Hyderabad

Osmania University
Jawaharlal Nehru Technical University
Institute of MSME
Institute of Chemical Technology

Kolkata

Calcutta University
Jadavpur University
Bidhanchandra Krishi Vishwavidyalaya
Indian Institute of Management (IIM)

Delhi

Delhi University
Netaji Subhash Institute of Technology
Delhi Engineering College
Indian Institute of Technology (IIT)

PROSPECTUS

About the Institute

The Indian Institute of Packaging (IIP), an autonomous body, is a National Institute set up in the year 1966 under the administrative control of the Ministry of Commerce, Government of India, with the active support of the Indian industries. Its headquarters and principal laboratories are located on a sprawling campus in Mumbai and its Six regional centres are located at Chennai, Delhi, Kolkata, Hyderabad, Ahmedabad and Vishakhapatnam. Activities of IIP, today, are in line with those of premier packaging institutes the world over. These are Training & Education, Consultancy & Projects, R&D, Package Testing & Quality Evaluation among others.

IIP works in close association with International organisations. IIP is a founder member of Asian Packaging Federation (APF) and World Packaging Organisation (WPO).

Course Objective

In recent times, with the globalisation of markets and trade, the role of packaging has assumed greater importance in marketing and distribution of agricultural produce, value added products, industrial products and mass-produced consumer goods. As a result, there is now a demand for technically qualified cadre of people who can undertake design, development, production, quality control as well as make effective use of modern packaging technology.

There are over 7,000 organised industrial units and nearly 4,50,000 small industries in India who use or produce packaging materials and require qualified technical personnel. IIP works in close association with International organisations. IIP is a founder member of Asian Packaging Federation (APF) and World Packaging Organisation (WPO).

The Indian Institute of Packaging has, therefore, to bridge the gap, developed a full time Post Graduate Diploma in Packaging (PGDP) Programme of two year duration, which has become popular in industries since 1987. In the year 2021 IIP has started two year full time Master in Packaging Technology (M.S. & M.Sc.) and one year online programme on Certified Packaging Engineers Course (CPEC).

Curriculum

The curriculum is so designed that the successful candidates would be well-equipped in all major facets of packaging activities and will be easily employable in a package manufacturing, packaging machinery manufacturing or user industries like food, pharmaceuticals, cosmetics and others. With experience, they can also aspire to be self-employed professionals / entrepreneurs in their field.

In order to provide sound technical knowledge and at the same time, acquaint them with industrial practices, the theory sessions have been kept at 70 per cent of the curriculum and the balance 30 per cent is allotted for practical sessions. The theory section includes classroom sessions and library reference work. The practical side includes laboratory exercise, industrial visits, project work and industrial training. Involvement in R&D Activities of the Institute will form an important part of the curriculum.

Title

The two-years programmes leads to a **Post Graduate Diploma in Packaging (PGDP), Master in Packaging Technology (M.S. & M.Sc.) and one year online programme Certified Packaging Engineers Course (CPEC).**

Eligibility Criteria:

- For M.S., M.Sc. & PGDP maximum age 30 years as on 31/05/2022 (Age relaxation : 3 years for OBC & 5 years for SC/ST)
- For CPEC no age limit

M.Sc. and PGDP

A candidate should have passed the full time (not by correspondence or part time) Graduate degree examination in Science (12th + 3 years degree entire 5 years in science only) with Physics / Chemistry / Mathematics Microbiology or Biochemistry as the main subject or one of them as second subject in the three year degree or Agriculture / Food Science/ Polymer Science or Engineering / Technology degree of a AICTE/ recognised University with minimum second class. The candidate needs to have consistently high academic performance and sound general knowledge.

M.S.

A candidate should have passed the full time (not by correspondence or part time) Graduate degree in Engineering & Technology or four year graduate in science.

CPEC

A candidate should have passed the full time (not by correspondence or part time) Graduate degree in Engineering & Technology.

Those with equivalent overseas qualification would also be eligible for admission. The candidate needs to have consistently high academic performance and sound general knowledge. Those with equivalent overseas qualification would also be eligible for admission.

Candidates appearing in the final year of the qualifying examinations can also apply, however, they must submit their results/ provisional results (as given by University) latest on the day of the personal interview and selection, as without their degree result, student are not eligible to appearing for personal interview and will be eliminated from the admission process.

Admission/Selection Procedure:

The admission for M.S. & PGDP Programmes will be done according to the following two steps:

- Written examination
- Personal Interview

Note: For M.Sc. candidates may visit GGIPU website for admission/ selection procedure and may contact IIP Delhi Centre.

Selection Procedure:

STEP 1: Written Examination

A candidate seeking admission to the M.S. and PGDP Course will be required to appear in the written Entrance Examination which will comprise of multiple-choice

questions. The syllabus for the written test is at the graduate level and the subjects include Physics, Chemistry, Mathematics and Engineering. The candidate has the option to choose questions, provided the number of questions does not exceed a fixed limit. The entrance examination for M.S. & PGDP will be conducted on **08/07/2022** at Mumbai, Kolkata, Delhi, Chennai, Ahmedabad and Hyderabad centers of the Institute. The Institute has the discretion to fix minimum qualifying marks for the examination and short list the candidates who will be eligible for further consideration for admission.

Application for admission to the course needs to be submitted on or before **02/07/2022** along with attested copies of mark sheets and other credentials. Application form, Prospectus and Syllabus can be obtained from 1st week of April, 2022 from any center by paying Rs. 500 in cash or by Demand Draft in favour of Indian Institute of Packaging payable at Mumbai or Kolkata or Delhi or Chennai or Hyderabad or Ahmedabad. The forms can also be downloaded from the IIP website. However, such forms should be accompanied with Rs.500 Demand Draft in favour of Indian Institute of Packaging payable at Mumbai or Kolkata or Delhi or Chennai or Hyderabad or Ahmedabad.

STEP 2: Personal Interview

Candidates, who clear the written examination as above, will be called for Personal Interview which will be held at the Mumbai, Kolkata and Hyderabad centers of the Institute.

Tuition Fee and Other Fee

Fee Structure for PGDP, M.S. and M.Sc.

A.	One time fee (payable at the time of admission)	Rs. 60,000*
B.	Fees per semester (Tuition Fee + Exam Fee)	Rs. 70,000* Rs. (69,000+1,000)
C.	Refundable Deposit (payable at the time of admission)	Rs. 3,000
D.	Hostel fees (optional) only in Mumbai	
	1) Payable at the time of admission [Registration fee (Rs. 1000) + Deposit (Refundable Rs. 1000)]	Rs. 2,000
	2) Fee per semester	Rs. 25,000
E.	Fees for application form/ syllabus/prospectus/ set of previous year's question papers	Rs. 500
Fee for foreign students - US \$ 2000 per semester (not included hostel, food & other charges)		

* Fees + ST as applicable

Total fees payable at the time of admission = A+B+C+D (optional)

Fee Structure for CPEC

S.No.	Details	Amount (Rs.)	GST 18% (Rs.)	Total (Rs.)	Due Date
	Registration Fee	250/-	45/-	295/-	During Registration
	Fee for I - Semester (Including one time Admission fee of Rs.10,000/-)	30,000/-	5,400/-	35,400/-	Before Commencement of the Course (31st May 2022)
	Fee for II - Semester	20,000/-	3,600/-	23,600/-	Before 15th Nov., 2022
	Fee for III - Semester	20,000/-	3,600/-	23,600/-	Before 15th March, 2023
Total fees				82,895/-	
Fee for overseas candidates - US \$1500 (Including Form Fee and Service Tax)					

The Institute has the discretion to fix minimum qualifying marks for Personal Interview which will make a candidate eligible for further consideration for admission. The final selection of candidates for admission to the course will be done in the order of their merit which will be based on the aggregate of marks calculated in each case according to the following weightage:

For M.S. & PGDP

(i) Marks obtained in 10th Class/Matriculation	: 10%
(ii) Marks obtained in 12th Class/Sr. Secondary	: 10%
(iii) Marks obtained in Graduation level	: 30%
(iv) Marks obtained in the Entrance Examination	: 30%
(v) Marks obtained in Personal Interview	: 20%

For M.Sc.

(i) Marks obtained in 12th Class/Sr. Secondary	: 10%
(ii) Marks obtained in Graduation level	: 20%
(iii) Marks obtained in the Entrance Examination	: 50%
(iv) Marks obtained in Personal Interview	: 20%

Display of 1st list will be based on the 1st round cut-off. The 2nd list display is on the basis of 2nd round cut-off. Further lists will be displayed on the availability of seats when necessary.

Note 1: For M.Sc. candidates should visit Guru Gobind Indraprastha University (www.ipu.ac.in) for application forms, entrance, personal interviews and other information.

Note 2: For CPEC, no entrance and candidates may submit application form directly or online mode.

Note:

The fees for the Semester II & III has to be paid prior to the commencement of the Semesters. Appropriate late fee of Rs. 100/- per week will be charged. Candidates will be allowed to attend in the next Semester on payment of fees. All fees are to be paid as per details provided in this Prospectus.

Fees Payment

Fees for the subsequent semester should be paid as follows for M.S., M.Sc. and PGDP.

2nd Semester: 16th Dec. 2022 to 06th Jan., 2023

3rd Semester: 23rd June to 14th July, 2023

4th Semester: 15th to 31st Dec., 2023

Note: Appropriate late fee applicable will be charged. Students will be allowed to attend in the next Semester on payment of Fees. All fees are to be paid by DD (in favour of Indian Institute of Packaging) RTGS, NEFT. Semester (2nd, 3rd & 4th) fees once paid will not be refunded under any circumstances.

Cancellation of admission

- Cancellation on/before commencement of the course 10% deduction balance will be refunded.
- After commencement of the course, with in 15 days 25% of fee deduction
- Within 1 month 50% of fee deduction
- After 1 Month No refund of fees

Hostel

The programme is non-residential. However, separate hostel accommodation for boys and girls on a twin sharing basis (with mess facility) is available only in Mumbai. There are limited rooms and is provided on first-come reserved basis, for only the students residing outside Mumbai.

Seats

The seats for every academic year as follows:

Mumbai - 280 (PGDP)	Delhi - 60 (M.Sc.)
Kolkata - 80 (PGDP)	Hyderabad - 30 (M.S.)
Chennai - 60 (CPEC, reservation not applicable)	

Seat reservation is as per the Government norms as below.

OBC -	27.0%
SC -	15.0%
ST -	7.5%

Semester Examination

A candidate for the M.S., M.Sc., PGDP and CPEC is required to pass three semester examinations and successfully complete the last semester devoted to industrial training and project work. Candidate with minimum 75% attendance in each subject will be allowed to appear for the Semester Exam.

Passing Criteria

For eligibility of M.S., M.Sc., PGDP and CPEC, a candidate must obtain at least 40 per cent marks in each paper and practicals. In addition, the candidate must obtain at least 50 percent in the aggregate.

Provision for ATKT

A student will be given an ATKT provide his/her overall performance is good and he / she is not falling in more than two subjects.

Re-examination for PGDP and CPEC

A re-examination will be conducted for students who have cleared Sem1 and Sem 2 and failed to clear Sem 3. Sem 3 Re-examination will be conducted before the convocation of that batch for PGDP and CPEC. However M.S. and M.Sc. students should follow Jawaharlal Nehru Technological University (JNTU) & Guru Gobind Indraprastha University (GGIPU) guidelines accordingly.



Grade

- A - 70% and above First Class with Distinction
- B - 60% and above First Class but less than 70%
- C - 50% and above Second Class but less than 60%

Students Award

Subject toppers in packaging technology are awarded special certificate.



Platinum, Gold, Silver and Bronze medals would be awarded to meritorious students so as to motivate the students of Post Graduate Courses Diploma.

The medals will be awarded to the students in the following manner:

Gold Medal – Overall Top Scorer

Silver Medal – Overall Second Scorer

Bronze Medal – Overall Third Scorer

The three toppers of the PGDP from each region will then compete for the topper amongst them all, for a Platinum Medal.

Code of Conduct

Following is the Code of Conduct which all the students enrolled for any of the courses organised by IIP need to follow:

Any violation of the code will attract disciplinary action. The disciplinary action will be entirely decided by the management of the Institute, and which may amount to removal of the student(s) from the course.

- All the students will be punctual in their attendance in the classroom and will be seated before the session starts as per the time-table.
- Students will behave properly in the classroom and within the campus of the Institute and will maintain the decorum.
- Decent dress code to be followed by the students.
- Following conduct / acts will be considered as violation of the code of conduct and is required to be followed by all the students:

- Entering the classroom after the session / lecture has started / commenced.
- Leaving the classroom, before the lecture / session is



completed without the permission of the faculty.

- Speaking loudly and among each other, during the progress of the lecture / session.
- Any kind of teasing, abusing, using bad words, unparliamentary language with any of the students, staff of IIP, faculty, visitors or any other person within the campus of the Institute.
- Consumption of alcoholic drinks, smoking, consuming any undesirable products within the campus.
- Humiliating, insulting in any manner with the staff of the institute, faculty or any guest, within the campus.
- Misplacing, stealing of any items or property, belonging to any of the students, staff, faculty or the Institute.
- Misbehaviour in any manner with any of the students, staff, faculty or visitor in the Institute.
- Bringing in the campus, any undesirable person, product, pet, without prior authorisation.



- Talking with other students, copying, exchanging material, papers during the examination.
- Littering with wrappers, paper etc. in the classroom, campus etc.
- Mishandling / misusing learning aids / books / instruments of the Institute.
- Ragging in any manner with any student in the campus.
- Eating in classroom, making noise in the corridor etc.
- Using mobile phones / its accessories in the classroom/laboratory.
- Copying presentations, lecture notes from laptops without prior permission of the respective faculty.
- Roaming in the office premises, campus without any reason.
- Destroying plants / greenery in the campus.
- Internet surfing in the classroom other than the time slot allotted, specifically for the purpose.
- Any act not mentioned above, but undesirable in the academic field.

Library Facility

The Institute has a well-equipped library with over 7,500 Indian as well as foreign books, in addition to reference books, journals, standards etc.

Dissertation / Library Reference Work

The student is expected to submit a typed report at the end of each semester as dissertation on library reference work, for evaluation. The subject for dissertation would be prescribed by the Institute.

Industrial Visits

Number of industrial visits are organised for the students during Semester I and II with a view to expose them to actual industrial processes and give an opportunity to acquire practical experience on packaging and non-packaging related subjects.

Additional Topics

To improve the skill of the students, new topics and additional lectures will be introduced.

Practical Examination

The methodology of practical examinations is detailed by the faculty. Normally, students will be required to plan work, perform experiments, report results and give interpretation of the same.

During practical examinations, emphasis is laid on the methods of working and accuracy of results, rather than on information that is asked during the theory examinations.

The practical examinations are held in Packaging Technology and other related subjects only.

Industrial Training

During the 4th semester, candidates are assigned to Industrial Training for 5 Months. Each candidate is required to submit a typed report (2 copies) as 'Project Work' providing methodology, findings etc. in detail as a part of industrial training.

Performance during industrial exposure, provided in the industrial unit, is evaluated based on the report to be submitted by each candidate and necessary assessment / certificate as may be obtained by the Institute from the concerned unit. 300 marks are assigned for industrial training and project work and 300 marks for overall performance of the candidate in all four semesters.

Marks are based on regularity in attendance (minimum 75%), conduct and progress as reported by the industrial supervisor, quality of report and viva-voce examination, besides behaviour etc.



Master in Packaging Technology (M.S.)

(Affiliated by Jawaharlal Nehru Technological University, Hyderabad)

Teaching Scheme - Semester I

Subject Code	Name of the Subject	Credit Hours		
		Theory	Practicals	Total Credits
PTC-101	Packaging Materials & Characterization – I	04	-	04
PTC-102	Product Package Development	04	-	04
PTC-103	Package Printing Technology	04	-	04
PTC-104	Ancillary Packaging Materials	03	-	03
PTC-105	Communication Skill & Report Writing	02	-	02
PTL-101	Material Testing Laboratory-I	-	04	02
PTL-102	Package Design Laboratory-I	-	04	02
	Elective – I	03	-	03
	Total	20	08	24
	Elective - I			
PTE1011	Plastics Processing & Conversion Technologies			
PTE1012	Packaging Distribution & Logistics			

- Note:** 1. Student may select one of the elective subject
2. One credit equal to two hours teaching session

Packaging Materials & Characterisation

Paper & Paper Board, Raw Materials, Manufacturing, Types of papers, Speciality papers, Cartons, Designs, Applications, Corrugated Fibreboard, Composite containers, Fibre drums, Plastic materials, thermoset, thermoplastic, engineering plastics, properties and applications in packaging.

Product Package Development

Packaging and Modern Merchandising, Marketing Requirements, Brand Management, Product Lifecycle Managing the Packaging Function, Project Scope, Consumer Research, the features of a package.

Package Printing Technology

Introduction to Screen Printing Process, applications of the process, Identification, Stencil systems-Screen Automatic screen printing machinery, Screen Printing Technique.

Ancillary Materials in Packaging

Cushioning, theory of adhesion, types of

adhesives, applications of adhesives, caps, closures, dispensers, new generation dispensing closures, Labels, types of labels, smart and intelligent labels, security labels, other ancillary materials.

Communication Skill & Report Writing

Communication- Introduction, Definition, Nature and Scope of Communication, Importance and Purpose of Communication; Oral Communication Exercises- Written Communication Exercises;

Plastics Processing & Conversion Technologies

Extrusion-Basic Principle Of Extrusion, Extruder Parts, Types of Extruder, Process, Injection Moulding-Principle, Machine, Processing, Process Variables, Mould Cycle, Types of Injection Mould, Rotational Moulding-Principle, Machine.

Packaging Distribution & Logistics

Introduction to Logistics -Elements of Logistics - Supply Chain Management &

Distribution; Classification of Pallets- Standards- Constructions-Pallet Treatment Techniques; Concept of Containerization.

Material Testing Laboratory – I

Testing of paper and paperboard such as grammage, thickness, Cobb, treating resistance, tensile, compression, burst strength, burst factor, RCT, crush test, stiffness, scuff resistance, gloss, haze, moisture.

Packaging Design Laboratory

Create 2D drawings in CAD software using Different basic shapes; Create Isometric views of different objects/packages; Create a 3D design; By manipulating 2 D vector graphics; Design an art work/graphics for a corrugated fibre board box.

Elective - I

- Plastic Processing & Conversion Technologies
- Packaging Distribution & Logistics.

Master in Packaging Technology (M.S.)

(Affiliated by Jawaharlal Nehru Technological University, Hyderabad)

Teaching Scheme - Semester II

Subject Code	Name of the Subject	Credit Hours		
		Theory	Practicals	Total Credits
PTC201	Packaging Materials & Characterization-II	04	-	04
PTC202	Package Finishing Operations	03	-	03
PTC203	Packaging Economics	04	-	04
PTC204	Pharmaceutical & Medical Device Packaging	04	-	04
PTL205	Material Testing Laboratory-II	-	04	04
PTL206	Packaging Design Laboratory-II	-	04	04
PTP207	Seminar-I	02	-	02
	Elective - II	03	-	03
	Total	20	8	28
	Elective - II			
PTE2011	Plastic Mould & Die Design			
PTE2012	Industrial Products Packaging			

- Note:**
1. Student may select one of the elective subject
 2. One credit equal to two hours teaching session
 3. Seminar-I, individual project work and industrial visits

Packaging Materials and Characterization-II

Metals in Packaging & their properties, Steel based: Stainless & Galvanized Steel - Coated steels like Tinplate, Tin free Steel - Polymer coated - properties & their applications, Metal Cans - Two-piece, Glass production, Basic processes of glass making, Quality control & testing

Package Finishing Operations

Technical & Commercial Considerations, Functional Basics of Decoration, Consumer Attributes, Functions and Limitations-Deception, linking various printing processes to package design formats, Designing, Manufacturing, Direct Printing Techniques on Packaging Substrates

Packaging Economics

Introduction - Introduction to Economics - Law of supply and demand, Economic Analysis - Installation and running cost of services, Break-even analysis, Cash flow analysis, Risk Analysis and Management Practice, Basic demand supply analysis - Market analysis,

Packaging Economics - Basic economics, Cost Effective Packaging - Guidelines.

Pharmaceutical & Medical Device Packaging

Characteristics of Pharmaceuticals & Drugs, Pharmaceutical Product - Definition of Drug - Characteristics - Stability - Chemical change / Reactions, Packaging of Drugs & Pharmaceuticals, Aseptic Packaging - Types & systems - Injectables and orals/ointments, Medical Device - Medical Devices Regulatory System and Packaging standards (EU & US)

Plastic Mould & Die Design

Introduction - Plastic Product Design Criteria, Moulding Considerations, Materials for Mould - Types of Ferrous and Non-Ferrous Materials, Machining Methods/ Tools/ Machines, Injection Mould - Mould Dimension Calculation, Mould Components, Extrusion Die - Types of Dies, Design Consideration

Industrial Products Packaging

Industrial Products Classification, Difference between consumer and

industrial products packaging needs, Susceptibility to corrosion, Theory of corrosion, Corrosion inhibitors (VCI/VPI) - types/varieties/properties, Protective Measures, Theory of cushion and cushion design, Wood-Packaging material, Other packaging materials & forms
Seminar - 1

Individual Project work and Industrial Visits
Material Testing Laboratory - II
Plastics, Woven Sack, Barrier Properties, Optical Properties and Extractability test for plastics

Packaging Design Laboratory-II

Create 2 D & 3 D Modelling, Create 2 D & 3 D Modelling and Package Performance Simulation for bottles, Create 2 D & 3 D Modelling and Package Performance Simulation for CFB

Elective - II

- Plastic Mould & Die Design
- Industrial Products Packaging

Master in Packaging Technology (M.S.)

(Affiliated by Jawaharlal Nehru Technological University, Hyderabad)

Teaching Scheme - Semester III

Subject Code	Name of the Subject	Credit Hours		
		Theory	Practicals	Total Credits
PTC301	Specialty & Innovative Packaging Technology	04	-	04
PTC302	Packaging Laws and Regulations	04	-	04
PTC303	Packaging Machinery	04	-	04
PTC304	Entrepreneurship Evolution & Management	03	-	03
PTL305	Transport Simulation Laboratory	-	04	04
PTL306	Packaging Design Laboratory-III	-	04	04
	Seminar-II	02	-	02
	Elective – III	03	-	03
	Total	20	08	28
	Elective - III			
PTE-3011	Food Packaging Technology			
PTE-3012	Sustainability & Circular Economy in Packaging			

- Note:**
1. Student may select one of the elective subject
 2. One credit equal to two hours teaching session
 3. Seminar-II, individual project work

Specialty & Innovative Packaging Technology

Specialty Packaging, Retort and Aseptic packaging, Active Packaging, Food Additives – Preservatives – Sachets & pads - Oxygenscavengers – Flavour absorbers-antimicrobial system – etc, Smart and Intelligent packaging, Time-Temperature indicators (TTI) – Biosensors, Technology of canning - New development in flexible packaging for foods.

Packaging Laws and Regulations

Standards, Bureau of Indian standard, standardization, Quality standards Legal Meteorology Act, FDA/ AGMARK rules and regulations, Eco- regulations, eco labeling, Pollution control related to packaging, IMDG, ICAO, Life Cycle Analysis, Export Regulations, recent FSSAI act, RFID, Barcode Markings & Labeling on Transport packaging.

Packaging Machinery

Packaging Machinery Types/ Classification & Application, Packaging Machineries – Conversion, Packaging

Machineries-for Line Operations and Systems, Ancillary Machinery & Equipments, Other Equipments.

Entrepreneurship Evolution & Management

Entrepreneurship Development- Definition, Need, Qualities required, Environment, Production Management - -Introduction, definition of products, production, Productivity- Definition, Importance, Benefits of increased productivity, Materials Management.

Food Packaging Technology

Introduction to Food Packaging Technology: Principles of Food Preservation, Food processing techniques and practices, Recent development in food packaging technology: Aseptic Packaging, MAP/CAP, Retort packaging, Vacuum Packaging, Packaging of milk and milk products; Fresh & Process Foods, Bakery products, confectionery.

Sustainability & Circular Economy in Packaging

Concept of Sustainability – Principles &

Concepts, Design Guidelines for Sustainable Packaging, Concept of Compostable, Biodegradable & Bio based Packaging Materials, Source Reduction – Various Waste Disposing Techniques, Environmental policies of India, Case Studies of Life Cycle Assessment in Packaging.

Seminar – II

Individual Project work

Transport Simulation Laboratory

Compression (Different Type of Materials), Inclined Impact, Drop, Vibration, Rolling, Stack load, Spray / Rain, Hydraulic pressure, Leakage test.

Packaging Design Laboratory-III

Use any one of the Solid Modelling Packages cited below and generate a solid models for a different 3 D Packaging samples container, UNIGRAPHICS / CATIA / PROE / IC3D / ETC.

Elective - III

- Food Packaging Technology
- Sustainability & Circular Economy in Packaging

Master in Packaging Technology (M.S.)

(Affiliated by Jawaharlal Nehru Technological University, Hyderabad)

Teaching Scheme - Semester IV

Sr. No.	Subject	Duration	No. of Credit Hrs.
1	Industrial Training & Report (5 Months)	5 months	18

- Note:**
1. To Submit hard book binding report as Project based on training and Viva-Voce.
 2. Marks will be assigned on the basis of regularity in attendance, conduct and Progress
 3. *To submit typed report as Project work based on training and viva-voce.
 4. **Marks will be assigned on the basis of regularity in attendance, conduct and progress.
 5. One Credit Hour is 1hr 15 mins.

Summary Sheet

Subjects	Credit Hours				No. of Credits
	Theory Subjects	Practical	Seminar	Project / Dissertation	
Semester- 1	6	2	-	-	24
Semester- 2	5	2	1	-	24
Semester- 3	5	2	1	-	24
Semester- 4	-	-	1	5	18
G.Total	16	6	3	2	90

CAMPUS PLACEMENTS

At the end of the Semester IV campus placement is arranged, wherein, students have the opportunity to face interviews arranged with a number of interested companies including from abroad. Campus placement interviews will be conducted at Hyderabad centre.

Assistance in Placement will be provided by the Institute only to the Students who have 90% attendance in all the semesters in all the subjects. Student with less than 90% attendance will not be allowed to appear in the Campus Placement Procedure.

Master in Packaging Technology (M.Sc)

(Affiliated by Guru Gobind Singh Indraprastha University, Delhi)

Teaching Scheme - Semester I

Code No.	Paper Name	L	P	Credits
MSPT-101	Elements of Mathematics	3	-	3
MSPT-102	Elements of Science (Chemistry & Physics)	3	-	3
MSPT-103	Electrical Science & Electronics	3	-	3
MSPT-104	Applied Mechanics	4	-	4
MSPT-105	Mechanical Technology	4	-	3
MSPT-106	Fundamental of Packaging	4	-	3
MSPT-107	Paper & Paperboard Technology	4	-	3
	Practical			
MSPT-108	Laboratory – I	-	4	2
MSPT-109	Engineering Drawing	-	4	2
MSPT-110	Project Work – 1	-	8	4
	Total	25	16	30

Note: Industrial Visit / Field Visit (NUES)

Semester-I

Elements of Mathematics:

Introduction, Types, Operations, Differential Calculus, Differential Theorem, Differential Equations, Algebra, Polynomials, Business Mathematics, Introduction to Statistics, Multiple & Partial-Correlation. Theory of Probability,

Elements of Science (Chemistry & Physics)

Atomic Structure and Chemical Bonds, Periodic properties, Organometallic Chemistry, Thermodynamics, Electrochemistry, Viscosity, Motion, velocity and acceleration, Force and laws of motion, Optics, Introduction to Quantum Mechanics, Lasers and Applications, Ultrasonics, Solid State Physics, Semiconductors.

Electrical Science and Electronics

Electrical currents and their effects. Ohm's law, OH lines, AC circuits, Power in AC Circuits, Introduction to basic components R-L-C their characteristics, Semiconductor P-N junction diode, zener diodes NPN & PNP, Introduction to power electronic devices, Definition of combinational circuits and sequential circuits.

Applied Mechanics

Force System and Moment of Inertia,

Parallelogram Law, Triangle Law; Resultant of Concurrent, Friction, Application to analysis of inclined plane, wedge and block system screw jack, Stresses and Strains, Relation between E, G & K, Analysis of Beams: Stability under Eccentric loading for vertical members.

Mechanical Technology

Manufacturing Processes, Study of role of different types of milling cutters, Kinematics, Mechanical Drives, V belts and ropes, stepped pulleys, Fluid Power, Application of hydraulic and pneumatic machines in industry, Construction and working of gear, screw, reciprocating, centrifugal.

Fundamentals of Packaging

Historical background, review of the earlier period and forecast for the packaging industry, . Growth of Packaging sciences, Modern society and packaging needs, Standards, Definition of Packaging, Functions, Properties, Types of Hazards, Types of corrosion; Prevention of corrosion by packaging.

Paper & Paperboard Technology

Cellulose Technology, Types of Paper and Paper Boards used in Packaging, Machinery for manufacturing, Additives used in paper and paper

board Packaging, Paper Grade, Specialty papers, Characterization & Applications; Quality parameters of Paper & Paperboard in Packaging. Applications of Paper, Paperboard.

Engineering Drawing

Introduction to computer Aided sketching, Orthographic Projections of Points and Lines, Orthographic Projections of Planes, Projections of solids, Sections of Solids and Development of Surfaces, Multi View Orthographic Projections, Isometric Projection

Practical

Physical, Mechanical and Chemical Properties of the Paper and Paperboard. Wax content; Bitumen content; Chromo coating; Blocking resistance; Bleeding resistance; Grease Resistance; Soap jelly test; Wax pick no; Scuff Proofness.

Project Work

Objective of this project is to develop an understanding of the principles of Packaging and allied subjects for knowledge in the Packaging Technology stream. The project work is to be allotted based on the 1st Semester subjects. The students work under the supervision of one of the faculty members at the institute.

Master in Packaging Technology (M.Sc)

(Affiliated by Guru Gobind Singh Indraprastha University, Delhi)

Teaching Scheme - Semester II

Code No.	Paper Name	L	P	Credits
MSPT-201	Plastic Technology	4	-	4
MSPT-202	Rigid Packaging Materials	3	-	3
MSPT-203	Ancillary Packaging Materials	3	-	3
MSPT-204	Printing Technology	3	-	3
MSPT-205	Tooling & Designs for Mould in Packaging	3	-	3
MSPT-206	Packaging Machinery	3	-	3
MSPT-207	Communication Skills (NUES)*	3	-	3
	Practical			
MSPT-208	Laboratory – II	-	4	2
MSPT-209	Machinery Drawing	-	4	2
MSPT-210	Project Work-II	-	8	4
	Total	22	16	30

Note: Industrial Visit / Field Visit (NUES) *

Semester-II

Plastic Technology

Introduction & Definitions of Polymers a Plastics, Natural polymers, Plastics in Packaging - Properties and Applications, Injection moulding, Extrusion, Thermoforming, Rotational moulding, Foam plastics, FRP process, Laminations, Coatings

Rigid Packaging Material

Corrugated Fiberboard Box, General, Types; Styles, Type of Flutes, Manufacturing process; Properties; Application, Fiberboard Containers & Drums, Composites, Metal containers, Wood: Wooden Containers, Plywood containers, Containerization and palletization, Glass

Ancillary Material

Types of the Ancillary Material, Properties applications, Role in packaging, Cushioning, Reinforcement, Textile & Cotton Bags, Aluminium foil- Quality Evaluation; adhesives, Labels and labeling, Seals & Closures, Closures for bottles, cans, jars, caps, stoppers.

Printing Technology

Introduction to different printing processes printing Techniques,

Lithography, Gravure, Flexography, Screen Printing, UV printing, Characterization, Flexographic inks, Gravure inks, Screen inks, Print finishing and Converting Quality control

Tools & Mould Designing

Design of injection moulds, Concept of mould construction, Blow moulds, Construction of blow moulds, Materials of constructions. Extrusion Dies, Product Design, Designing for packaging applications; Materials, processors & selection of packages for various applications. Use of CAD/CAM in mould design & manufacturing.

Packaging Machinery

Types of packaging machinery, Equipment for filling tubes, Non-liquids, rigid preformed container machinery, Inplant plastic bottle making; Laminating, Hot melt – use, method, equipment; Vacuum and gas packaging, method, application, equipment. Packaging of pottery and ceramics; Latest developments in packaging machinery.

Communication Skills

Communication, Introduction, Definition, Nature and Scope of Communication, Importance and Purpose of Communication, Process of

Communication, Types of Communication. Basic Remedial Grammar, Vocabulary and usage, Spoken English Communication Speech Drills Pronunciation and accent Stress and Intonation.

Practical

Physico-mechanical Properties of Plastics, Woven Sack, Water Vapour Transmission Rate (WVTR) & Oxygen Transmission rate (OTR). Metals, Adhesives, Solid content; Viscosity; Tack

Machine Drawing

Missing Views, Threads, Nuts & bolts, Keys & Coupling, Plane And Spring Washers, Keys And Couplings. Detail And Assembly Drawing Of Different Keys And Couplings: Bearings, Details and Assembly Drawing Of Footstep Bearing.

Project Work

Objective of this project is to develop an understanding of the packaging machinery, processing, rigid packaging materials, Printing and Mould design subjects getting knowledge in Packaging Technology stream. The project work to be allotted based on the 2nd Semester packaging subjects. The students to be work under supervision of one of the faculty members at the institute.

Master in Packaging Technology (M.Sc)

(Affiliated by Guru Gobind Singh Indraprastha University, Delhi)

Teaching Scheme - Semester III

Code No.	Paper Name	L	P	Credits
MSPT-301	Entrepreneur Evolution and Management	4	-	4
MSPT-302	Economics & Financial Management	4	-	4
MSPT-303	Operation and Supply Chain Management	4	-	4
MSPT-304	Packaging Laws and Regulations	3	-	3
MSPT-305	Product Packaging	4	-	4
MSPT-306	Human Values and Professional Ethics (NUES)*	3	-	3
	Practical			
MSPT-307	CAD/CAM & Package Design	-	4	2
MSPT-308	Laboratory – II	-	4	2
MSPT-309	Project Work – III	-	8	4
	Total	22	16	30

Semester-III

Entrepreneur Evolution and Management

Entrepreneurship Development, Sick Industries, Reasons & Rehabilitation and Project report preparation, Production Management, Functions of production planning & control, Materials Management, Demand forecasting, Market Management, Distribution strategy, analysis of data, international marketing, case studies.

Economics and Financial Management

Basic Concepts, Definition, Assumptions, Overview of Indian Economy, Demand & Supply, Market Structure, Nature of production, Introduction to Financial Accounts, cost accounts Basic of finance, Investment Analysis, Financial Management.

Operations and Supply chain management

Material Management, functions, policies, outsourcing; make or buy decisions, vendor development and rating, Storage and warehousing concepts, supply chain, structure,

complexity, key issue, Transportation decision, Distribution and logistics in supply chains, Supply chain performance management.

Packaging Laws & Regulations

Standards, Bureau of Indian standard, standardization, Quality standards. Legal Meteorology Act, Weights and measures Acts, FDA/ AGMARK rules and regulations, Eco- regulations, eco labeling, Counterfeiting, IMDG, ICAO, Life Cycle Analysis, Export Regulations

Product Packaging

Introduction to Food Technology, MAP/CAP, Retort packaging, Vacuum Packaging. Methods of storage, Packaging of milk and milk products; bakery products, confectionery, Packaging of Pharmaceuticals: Packaging of Toiletries Packaging of Light engineering goods. Packaging of Textiles and Readymade garments. Packaging of sports goods. Packaging of handicrafts.

Human Values and Professional Ethics (NUES)

Introduction to Value Education, Understanding the need, basic guidelines, Methods to fulfil the human aspirations, Harmony in the Human

Being, Understanding the Harmony of "I" with the body, Basics of Professional Ethics, Ethical Human Conduct, Professional Ethics in practice.

CAD/CAM & Packaging Design

Introduction to design 2D & 3D dimensional Design, study of visual elements, principles of typography, introduction to visual ergonomics, understanding the relationship between consumer & communication design, creating 3D objects etc., in Auto CAD/CAM.

Practical

Corrugated Fiberboard Box, Transport Test, Hessian, Adhesive tape, Shelf Life Studies of Food related products.

Project

Objective of this project is to develop an understanding project packaging, laws and regulations, CAD/CAM, Packaging Design, Management and supply chain subject for getting knowledge in Packaging Technology stream. The project work to be allotted based on the 3rd Semester packaging subjects. The students to be work under supervision of one of the faculty members at the institute.

Master in Packaging Technology (M.Sc)

(Affiliated by Guru Gobind Singh Indraprastha University, Delhi)

Teaching Scheme - Semester IV

Code No.	Paper Name	L	P	Credits
MSPT-401	Industrial Training / Major Project in Packaging Technology	-	-	20
	Total	-	-	20

Semester-IV (Internship)

The students will have Industrial training for 5 Months at various packaging & allied industries. During their training they will get hands on industrial exposure. The industries assign the specific tasks relating to packaging operations / packaging development or short projects requiring study / designing / developments in packaging.

CAMPUS PLACEMENTS

At the end of the Semester IV campus placement is arranged, wherein, students have the opportunity to face interviews arranged with a number of interested companies including from abroad. Campus placement interviews will be conducted at Delhi centre.

Assistance in Placement will be provided by the Institute only to the Students who have 90% attendance in all the semesters in all the subjects. Student with less than 90% attendance will not be allowed to appear in the Campus Placement Procedure.



Industrial Visit

SYLLABUS

Post Graduate Diploma in Packaging (PGDP) Teaching Scheme - Semester I

Sr. No.	Name of the Subject	Credit Hours		
		Theory	Practicals	Total Credits
1.	Mathematics I	18	-	18
2.	Science (Chemistry and Physics)	18	-	18
3.	Electrical Technology	18	-	18
4.	Applied Mechanics I	36	-	36
5.	Mechanical Technology	18	-	18
6.	Engineering Mechanisms	18	-	18
7.	Introduction to Principles of Packaging	18	-	18
8.	Paper and Paperboard	18	-	18
9.	Glass Technology	09	-	09
10.	Introduction to Plastics and Polymers	09	-	09
11.	Project Work	-	-	-
12.	Engineering Drawing	18 [§]	-	18 [§]
13.	Industrial / Field Visit	85	-	85
14.	Practicals (Packaging Technology)	-	54	54
TOTAL:		301	54	355

* Marks assigned on the basis of seminar, report, submission, presentation and viva-voce.

[§] For practical / exercises, additional 18 hrs.

** 50% Marks assigned on the basis of submitted work (drawing sheets

with exercises) & 50 % based on exam.

[†]G means grade assigned on the basis of attendance, conduct and report submitted by the students.

^{**} Marks assigned on the basis of tests and viva-voce
One Credit Hour is 1 hrs. 15 min.

Theory Syllabus - Semester I

Mathematics I

Matrices, Differential Calculus, Differential Theorems, Integral Calculus and Differential Equations, Algebra, Polynomials, Business Mathematics

Chemistry and Physics

Chemical Bonds, Thermodynamics, Electro Chemistry, Gas Laws, Viscosity, Velocity and Acceleration, Force, Laws of Motion, Energy.

Electrical Technology

Circuits, Generators, Motors, Transformers, Measuring Instruments, Distribution.

Applied Mechanics I

Scalars and Vectors, Centre of Gravity,

Friction, Moment of Inertia, Stress-Strain Theory, Load Distribution, Bending Deflections, Torsion Analysis, Columns, Joints.

Mechanical Technology

Workshop Processes and their Appraisal, Hand Tools, Measuring Instruments.

Engineering Mechanisms

Kinematics, Mechanical Drives, Gear Trains, Clutches and Brakes, Bearings, Cams, Dynamometer.

Introduction to Principles of Packaging

Introduction, Components, Permeability, Mechanisms of Spoilage, Corrosion and Prevention of Corrosion, Package Evaluation, Ecological Aspects, Bar-coding Applications in Packaging.

Paper & Paper Board

Cellulosic Materials, Processes in Cellulose Industries, Paper and Board Manufacture, Testing of Cellulose and Paper Materials, Speciality Papers, Folding Cartons, Multiwall Paper Sacks, Composite Containers.

Glass Technology

Glass Containers: Manufacture, Properties, Applications and Testing.

Introduction to Plastics & Polymers

Polymeric Material, Properties, Applications, Polymer Composites, Polymer Blends, Additives for Plastics, Testing & Evaluation.

Engineering Drawing

Drawing exercises to be completed on drawing sheets for submission.

Practicals

Experiments based on Paper / Fibreboard and Glass Containers: Properties and Applications.

Post Graduate Diploma in Packaging (PGDP) Teaching Scheme - Semester II

Sr. No.	Name of the Subject	Credit Hours		
		Theory	Practicals	Total Credits
1.	Economics	18	-	18
2.	Principles of management	18	-	18
3.	Mathematics II	18	-	18
4.	Applied Mechanics II	36	-	36
5.	Industrial Electronics	18	-	18
6.	Fluid Mechanics and Machinery	18	-	18
7.	Introduction to Plastic Processing	36	-	36
8.	Rigid packaging Material (Non-Plastic-CFB, Composites, Metal, Wood etc)	36	-	36
9.	Ancillary and other packaging material	18	-	18
10.	Package Printing Technology	18	-	18
11.	Machine Drawing	18 [§]	-	18 [§]
12.	Industrial / Field Visits	180	-	180
13.	Project Work	-	-	-
14.	Practicals (Packaging Technology)	-	54	54
TOTAL:		432	54	486

[§] For practical exercises, additional 18 hrs.

** 50% Marks assigned on the basis of submitted

G marks assigned on the basis of attendance, conduct and report submitted by the students.

Marks assigned on the basis of report submission, presentation and viva-voce.

^ Marks assigned on the basis of tests, journal and viva-voce.

One Credit Hour is 1 hrs. 15 min.

Theory Syllabus - Semester - II

Economics

Study of Demand and Supply, Market Structure, Nature of Production, Distribution, National Income and Money.

Principles of Management

Definition, objective, function etc.

Mathematics - II

Introduction to Statistics, Application of Statistics in Packaging, Normal Distribution, Dimensional Analysis, Measures of Central Tendency, Measures of Dispersion Coefficient of Variations, Skewness, Simple Correlations and Regressions, Multiple Regression, Multiple and Partial Correlation and Variability, Design of Experiments for Packaging Applications, Statistical Quality control.

Applied Mechanics - II

Simple Stress-Strain Theory, Theory of Torsion, Columns and Struts.

Industrial Electronics

Electronic Devices: Tubes, Transistors, ICs, Rectifiers, Amplifiers, Oscillators, Analogue and Digital Measurements and Controls, Application of Computer in Packaging.

Fluid Mechanics and Machinery

Hydraulic and Pneumatic Machines, Rotary Pumps, Centrifugal Pumps, Constant and variable Delivery Pumps

Introduction to Plastic Processing

Injection moulding, Extrusion & Blow moulding, Calendering, Thermoforming, Rotational moulding, Foam Plastics, FRP Process, Coatings, Wax and lamination Processing Technics

Rigid Packaging Material (Non Plastic - CFB, Composites, Metal, Wood etc.

Fibreboard Containers, Drums, Tin, Aluminium Cans / Containers, Aluminium Foils, Steel Drums, Wooden Containers / Crates.

Ancillary and other Packaging Material

Cushioning, Textile Bags, Technics of sealing Process, Adhesive, Reinforcement, Twines and cards, Clips, Hooks, Stitching Methods, Seals & Closures.

Package Printing Technology

Process of Communication, Printing Processes and Methods, Layout & Paste-up, Composition for Printing, Theory of Full Colour Graphic Arts, Photography, Printing Image, Carriers, Printing Presses, Paper and other Printing Stocks, Printing Inks.

Machine Drawing

Submission of drawings based on exercises given.

Research Activities

Exposure to various research activities with laboratory assignments, analytical work as part of research projects by the Institute and also be entrusted with research projects after the completion of the Semester-II Examinations.

Practicals

Plastics Technology - Experiments connected with Plastics. Experiments on Seals, Coating, Laminates, Reinforcements.

Post Graduate Diploma in Packaging (PGDP) Teaching Scheme - Semester III

Sr. No.	Name of the Subject	Credit Hours		
		Theory	Practicals	Total Credits
1.	Production Management	36	-	36
2.	Financial Management	27	-	27
3.	Principles of Entrepreneurship	18	-	18
4.	Marketing Management	18	-	18
5.	Material Management	9	-	9
6.	Product Packaging(Food/Pharmaceuticals/ Cosmetics, Chemicals etc.)	36	-	36
7.	Packaging Machinery	36	-	36
8.	Packaging Laws and Regulations	18	-	18
9.	Tooling and Design of Moulds for Packaging	27	-	27
10.	Introduction to Packaging Design Concepts	9	-	9
11.	Application of Computers in Packaging Design	18\$	-	18\$
12.	Communication Skills	18	-	18
13.	Practicals (Packaging Technology)	-	54	54
TOTAL:		360	306	360

* Portion of the marks will be assigned for project / library reference work.

**For practical exercises, additional 18 hrs.

One Credit Hour is 1 hrs. 15 min.

Theory Syllabus - Semester - III

Production Management

Industrial Engineering, Operations Research, Quality Control, Production, Planning and Control.

Financial Management

Cost Accounting and Financial Management.

Principles of Entrepreneurship

Definition, Objective, Function etc.

Marketing Management

Structure, Models, Market Research, Demand curves, Market Share estimation, Sale Models, New Product Development, Distributions Strategy, Market Research

Material Management

Concept & Objective for Material Function, Purchasing System, Inventory, Costing, Demand for Casting, Transportation, Evaluation Material

Product Packaging (Food / Pharmaceuticals / Cosmetics / Chemicals etc.

Introduction to Food Preservation/ Packaging Technology, Method of Storage, Packaging of Food, Pharmaceuticals, Cosmetics, Chemicals and other products.

Packaging Machinery

Filling of Dry and Liquid Products, Filling of Carbonated Liquids and other Packaging Techniques, Cartoning, Labelling, Thermoforming.

Packaging Laws & Regulations

Standards and Standardisation, Quality Standard, Eco Regulations, FSSAI Rules and Regulations etc.

Tooling and Design of Moulds for Packaging

Injection Moulds, Blow Moulds, Extrusion Dies, Product Design, Designing for Packaging Application.

Introduction to Packaging Design Concepts

Introduction to design, 2D & 3D dimensional Design, Study of Visual Elements, Principles of Typography, Introduction to visual ergonomics, understanding the relationship between consumer & communication Design

Application of Computers in Packaging Design

Setting drawing requirement, Commands and systems variables, To co-ordinate a system, Creating objects, Editing methods, Layers and object properties, Creating 3D objects etc.

Auto CAD - Practice Session Communication Skills

Techniques and practices.

Practicals (Packaging Technology)

Experiments connected with Metal Containers. Experiments connected with Permeability, Shelf-life Studies of Food, Cosmetics and Pharmaceutical Products.

Post Graduate Diploma in Packaging (PGDP) Teaching Scheme - Semester IV

Sr. No.	Name of the Subject	Credit Hours	
		Duration	Total Credits
1	Industrial Training (Internship)	6 months	480
2	Overall Performance		480

* To submit typed report as Project work based on training and viva-voce.

** Marks will be assigned on the basis of regularity in attendance, conduct and progress.

One Credit Hour is 1.15 hrs.

TOTAL CREDIT HOURS

1.	SEMESTER-I	355
2.	SEMESTER-II	486
3.	SEMESTER-III	360
4.	SEMESTER-IV	480
	TOTAL	1681

CAMPUS PLACEMENTS

At the end of the Semester IV campus placement is arranged, wherein, students have the opportunity to face interviews arranged with a number of interested companies including from abroad. Campus placement interviews will be conducted at Mumbai & Kolkata centre.

Assistance in Placement will be provided by the Institute only to the Students who have 90% attendance in all the semesters in all the subjects. Student with less than 90% attendance will not be allowed to appear in the Campus Placement Procedure.



Certified Packaging Engineer (CPE) Course

Teaching & Examination Scheme: Semester - I

S.No.	Subject	No. of Credit Hours #	No. of Papers	Exam Duration	Marks
	Packaging Technology – 1	20	1	2 hrs	50
	Packaging Technology – 2	20	1	2 hrs	50
	Packaging Technology – 3	20	1	2 hrs	50
	Packaging Technology – 4	20	1	2 hrs	50
	Practical's - I	20	1	2 hrs	50
	Total	100	5		250
# 1 Credit Hour – 90 Minutes					

Packaging Technology – 1: Status of Packaging Industry, India and International and Export Packaging, Principles, Functions, Concept and Modern Role of Packaging, Concept of Packaging, Design and Sustainable Package Design, Concept and Advanced Processing of Glass Packaging, Concept and Advancement in Metal.

Packaging Technology – 2: Concept and Advanced Processing of Paper and

Paperboard Packaging, Concept and Automation in Corrugated Fibre Board Boxes Packaging; Wooden based Packaging, Pallet and Palletization; Ancillary and other Packaging Material, Data Analysis of Packaging Industry.

Packaging Technology – 3: Introduction to Plastic Processing and Packaging, Concept and Advanced Processing of Plastics and Polymer Packaging, Advances in Flexible Packaging Material, Mould Design and its Application in Packaging,

Advances in Tooling & Design of Moulds for Packaging.

Packaging Technology – 4: Basic Concept of Printing on Packaging, Advances in Printing on Packaging with special reference to the Digital Printing, Various Types of Packaging Machinery, Packaging Standards, Laws and Regulation, Role of BIS, FSSAI, MoFI and NABL, IATA, ILAC, IMDG, ASTM, IMDG with reference to the Packaging Industry.



Certified Packaging Engineer (CPE) Course

Teaching & Examination Scheme: Semester – II

S.No.	Subject	No. of Credit Hours #	No. of Papers	Exam Duration	Marks
	Packaging Technology – 5	20	1	2 hrs	50
	Packaging Technology – 6	20	1	2 hrs	50
	Packaging Technology – 7	20	1	2 hrs	50
	Management Studies	20	1	2 hrs	50
	Practical's - II	20	1	2 hrs	50
	Total	100	5		250
# 1 Credit Hour – 90 Minutes					

Packaging Technology – 5: Basic Concept and Advancement in Food Packaging, Basic Concept and Advancement in Automobile Packaging, Basic Concept and Advancement in Pharmaceutical Packaging, Basic Concept and Advancement in Cosmetics, Basic Concept and Advancement in Industrial Packaging.

Packaging Technology – 6: Regulation related to Hazardous Packaging, Sustainable Packaging, Active and Interactive

/ Intelligent Packaging, MAP, CAP Concept of Packaging, Biodegradable and Biocompatible Packaging.

Packaging Technology – 7: Application of Computers in Packaging Design & CAD Application, Automation and End Line Solution in Packaging industry, Interaction Between Machinery & Automation, Packaging 4.0, Role of Master Batch in Plastic Processing and Packaging, Application of

Robotics in Packaging, No Touch and Antiviral/Antimicrobial Packaging, Nano Packaging System.

Management Studies: Production Management with reference to the Packaging, Marketing Management with reference to the Packaging Industry, Materials Management with reference to the Logistics.



Certified Packaging Engineer (CPE) Course

Semester – III

S.No.	Subject	No. of Credit Hours #	No. of Papers	Exam Duration	Marks
	Industrial Training & Report	-	1	-	100*
	Dissertation, Presentation & Viva - Voce	-	1	-	100**
	Total	-	2	-	200
# 1 Credit Hour – 90 Minutes					

\$ It may vary depending upon the company where the candidate will do the Industrial Training.

* Marks will be assigned based on the regularity in Attendance, Conduct and Progress

** Based on the typed report submitted on the Industrial Training, Dissertation, Presentation & Viva - Voce.

Important Dates:

Admissions Open	: 01st April, 2022
Closing Date	: 30th June, 2022
Commencement of the Course	: 01st July, 2022

Academic Calendar:

One Year (Three Semesters) online programme

S.No	Semester	Schedule	Duration
1	Semester - I	July 2022- October 2022	4 Months
2	Semester - II	November 2022 - February 2023	4 Months
3	Semester - III	March 2023 – June 2023	4 Months

The online classes will be conducted in the Evening and / or Weekends to make it convenient for both working and Job seekers in the field of packaging.

Note: The fees for the Semester II & III has to be paid prior to the commencement of the Semesters. Appropriate late fee of Rs. 100/- per week will be charged. Candidates will be allowed to attend in the next Semester on payment of fees. All fees are to be paid as per details provided in this Prospectus-2022.



Hostel complex



Class Room Session



Pre-placement Talk



Group Discussion



भारतीय पैकेजिंग संस्थान
Indian Institute of Packaging
An autonomous body under the Ministry of Commerce & Industry, Govt. of India

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