THE INSTITUTE OF PACKAGING SA

COURSE OVERVIEW

# OVERVIEW OF PACKAGING TECHNOLOGY CERTIFICATE COURSE 2026 - ONLINE

# OVERVIEW OF PACKAGING TECHNOLOGY

## WHERE DOES THIS COURSE FIT INTO IPSA'S EDUCATION PROGRAMME

The Institute of Packaging (SA) has identified a need to meet industry's requirements for a basic level course in 'Packaging'. The course is devised at a starter level for those employed in the broader packaging and related industries. It seeks to address South Africa's need for skilled employees in this sector where a basic knowledge of packaging, its principles and materials is lacking.

This course, therefore, offers a seamless introduction to the more in-depth content of the Institute's 'One Year Diploma in Packaging Technology'. The Advanced Packaging Diploma (APD) is at this stage the final step in the Institute's portfolio of educational courses.

## COURSE OBJECTIVE AND EXIT OUTCOMES

This course is aimed at those students who are new to the packaging field and who have little or no previous knowledge of packaging. The course is therefore aimed at trainee packaging technologists, machine operators, packaging line team leaders, packaging material salespeople, packaging material buyers, logistics controllers / supervisors, or packaging material laboratory / QC assistants.

This course is also aimed at persons very new to packaging – for example, school leavers interested in this field as a possible vocation, or perhaps newly recruited employees / first time workers.

The course takes a training approach with a significant practical content during class sessions. Practical packaging assessments would introduce packaging identification and measurement skills as found in the industrial laboratory.

At the conclusion of the course the students should have a good grasp of the technologies of packaging, and the materials and processes involved in the industry. This will equip them not only to contribute more meaningfully in their employment, but prepare them for their next academic step – which is to study the Institute's One Year Diploma in Packaging Technology.

## IT REQUIREMENTS

Students must have access to a PC, WIFI, internet and data as the sessions will be conducted through the Zoom application.

## ELIGIBILITY

Students should have at least a matriculation certificate and an adequate proficiency in the English Language, enabling them to grasp explanations of a moderately technical nature.

## PARTICIPANT OBLIGATION

As stated below, this is designed to be a very practical and visual learning experience, so students will be expected to apply themselves to the practical requirement of the course, which includes the Action Points referred to below.

## COURSE LENGTH & STRUCTURING

The course will run for a minimum of approximately 33.5 hours, comprising 14 lectures; i.e. 3 online sessions of 2 hours, and 11 online sessions of 2,5 hours – the latter including the half hour learner assesments. The detail is as set out in the syllabus following, divided into 12 modules. The frequency of lectures will be advised to potential students.

## SUBJECT FACILITATORS

Drawn from Industry - persons who are up to date and well qualified in their fields.

## COURSE EVALUATION / ACHIEVEMENT RECOGNITION & ASSESSMENT

Formal online participation is expected to be at least 80% (12 of the 14 lecture sessions). As the course progresses, the students are required to complete a ''Learning Check" at the beginning of each online session based on the previous lecture's work. A PASS is an accumulated average score of 70% (80% = with merit). Only students achieving 70% of marks available or more will be issued with the Institute's formal Certificate – Introduction to Packaging Technology.

## MODUS OPERANDI

The course makes use of sample materials and numerous pictures and photographs to familiarise the student with the course concepts – it is intended to be very visual and interactive in nature.

Students will be given the opportunity to view the various material types and formats and discuss their suitability or different applications.

The course is interspersed with "Action points" which are practical 'interludes' during each lecture where the students are required to discuss or perform practical exercises designed to give them 'hands on' exposure to the subject matter.

As stated above, there is a Learning Check at the beginning of each online session (except the first) providing a means for both the student and the lecturer to measure the successful knowledge gain, or identify where there are learning deficiencies.

After-hours research by learners is an important component of the course, where packaging applications and materials, local and imported products, would be assessed and discussed in the class sessions.

## TOTAL COST

R13 347,00 including VAT and Student membership for the Year.

Successful graduates of the course also receive gratuitous membership of the Institute for one year after completion of the course.

# PROGRAMME STRUCTURE AND PRESENTATION

(Dates of lectures will be advised prior to the commencement of each scheduled course)

| MODULE NUMBER | SUBJECT & LEARNING OBJECTIVES | LECTURE HOURS |
|---|---|---|
| 1 | **WHAT IS PACKAGING?**<br>* state the definition of packaging<br>* list the five functions that packaging needs to satisfy<br>* identify and explain the principles of packaging<br>* describe a simple package design based on the criteria and principles learned. | 2 |
| 2 | **PACKAGING PERSPECTIVES**<br>* to highlight the impact of packaging in modern society with reference to<br>* the supermarket<br>* road transport<br>* the preservation of products<br>* the environment. | 2,5 |
| 3 | **THE PROTECTION ROLE OF PACKAGING** – lectures one and two<br>* understand the terms shock and cushion<br>* understand the ways in which shock damage can be lessened or prevented<br>* describe the 3 main categories of cushioning systems<br>* explain the factors affecting the amount of water vapour reaching a product<br>* Explain the terms gas barrier – permeability – MVTR – OTR and ESC<br>* identify the three type of cushioning used in illustrations and names the materials in use. | 2+2,5 |
| 4 | **DISTRIBUTION PACKAGING**<br>* list the criteria to be satisfied when considering packaging for distribution<br>* explain the five elements that need to be considered for distribution packaging<br>* list the five hazards of distribution that can be eased by correct distribution packaging. | 2,5 |
| 5&6 | **PAPER AND PAPERBOARD** – two lectures<br>* describe paper and its various grades<br>* explain the two ways of manufacturing wood pulp<br>* explain the key properties of paper and its various formats<br>* Explain the importance of paperboard carton for use in packaging<br>* describe the components of a paperboard carton<br>* explain the manufacture of cartons<br>* identify the different carton styles and types. | 2,5+2,5 |
| 7 | **CORRUGATED BOARD**<br>* explain the basic structure of Corrugated Board<br>* classify corrugated board – flute, class<br>* design the structure of a typical corrugated shipping case. | 2,5 |
| 8 | **PLASTICS**<br>* explain the major properties of plastics<br>* identify the main plastics used in packaging<br>* explain the conversion processes of thermoplastics in packaging<br>* explain the terminology related to polymers and plastics technology, for example – flexible plastics, polymer, monomer, thermoplastic, thermoset, tear strength, heat sealing of plastics, crystallinity, shrink film, etc.<br>* name the applications for each of the major packaging plastics. | 2,5+2 |
| 9 | **GLASS**<br>* identify the major constituents of glass<br>* understand the manufacture of glass and glass containers<br>* describe the advantages and disadvantages of the use of glass as a packaging medium<br>* understand the meaning of basic bottle terms: ullage, fill height, hot fill, hydrodynamic breakage, annealing, hot end and cold end coatings<br>* be able to sketch a bottle and name the major components. | 2,5 |
| 10 | **METAL PACKAGING – TIN**<br>* detail the positive and negative properties of tinplate<br>* explain the two manufacturing processes of tinplate cans<br>* explain tinplate and can making terminology. | 2,5 |
| 11 | **METAL PACKAGING – ALUMINIUM**<br>* outline the major advantages and disadvantages of aluminium as a packaging medium<br>* explain aluminium foil and can making terminology<br>* identify product applications for aluminium. | 2,5 |
| 12 | **AN INTRODUCTION TO PRINTING PROCESSES**<br>* explain the principles of the various printing processes<br>* explain the terminology related to printing processes<br>* identify applications for each of the major printing processes. | 2,5 |
| | **TOTAL LECTURE AND ASSESSMENT TIME (HOURS)** | **33,5** |

## ENROLMENT FORM

This will be supplied upon request, or can be accessed via the Institute's website www.ipsa.org.za.
Once completed in full, this should be emailed to the address given below.
Interim enquiries can be addressed as below.

## ENQUIRIES AND ENROLMENTS

See further detail on the Institute's official website or contact

**Lara-Jane Venter**
082 776 2201
education@ipsa.org.za

*The student is the most important persons in our lives. He or she is not dependent upon us – we are dependent upon him or her. He or she is not an interruption of our work but is the purpose of it. He or she is not an outsider to our business, but a part of it. We are not doing him or her a favour by serving him or her, he or she is doing us a favour by giving us an opportunity to do so.* - Borrowed and adapted from the sayings of Mahatma Ghandi

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**VISIT OUR WEBSITE: www.ipsa.org.za**