



DIPLOMA OF
THE PLASTICS AND RUBBER INSTITUTE MALAYSIA
(DPRIM) IN PLASTICS TECHNOLOGY

1 Year Diploma Course
SBL Scheme Applicable!!!

In partnership with



Malaysian Plastics Manufacturing Association

In collaboration with



UniKL



UiTM

Tel: 03-78471034



Course Structure

The 3rd course intake commences in February 2011. A total of 180 hours will be spent on the lectures and practical.

Evening lectures of 3 hours duration will be held once a week at the our building in Mah Sing Industrial Area.

A two-week duration practical session which illustrates the laboratory topics covered in the lectures will be held at mid and end of year.

Candidates will also work with industrial setup environment in University Kuala Lumpur and University Technology Mara for processing machinery and laboratory testing equipment.

**THE PLASTICS AND RUBBER
INSTITUTE MALAYSIA**

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BACKGROUND

The Plastics and Rubber Institute Malaysia organizes a part-time, one year course, leading to the award of the Diploma of the Plastics and Rubber Institute of Malaysia (DPRIM).

- The course is designed for those already in the plastic industry but with no formal training on subjects related to polymer science and technology. It is intended that the theoretical study and insight given by the Institute's lecturers are related to viable activity and need of the local industries.

The course provides valuable training and leads to a useful additional qualifications for successful candidates, it is recognized as a qualification suitable for a technical position of some responsibility in the polymer industry.

The candidate has to undergo the complete course of 4 intensive modules as well as the mid-year practical session. Upon successful completion and passing the 4 examination papers, a certificate of DPRIM will be awarded.

DURATION

49 weeks

DATE & VENUE

LEE FOUNDATION HALL PRIM
BUILDING ,
20 JALAN U5/28,
MAH SING INTEGRATED
INDUSTRIAL PARK, SHAH ALAM
SELANGOR DARUL EHSAN.

LECTURE
TIME: 6.00 pm to 9.00 pm
Every Friday

PRACTICAL
TIME: 9.00am to 12.00pm
UniKL & UITM

COURSE CONTENTS

The course is divided into 4 sections. The topics covered are as follows:

1

Introduction to Polymer Materials

Content:

A. Introduction to Polymer Systems: 9 hours (Module 1)

covering:

- + Types/Classification
- + Homopolymer, Copolymer & Blend
- + Tacticity & Cis/Trans Transition Temperatures
- + Crystallinity (Semi & Crystalline Plastics)
- + Polymerisation
- + Molecular weights

B. Plastics Materials & Polymer Structure and Properties :

12 hours (Module 2) covering:

- + Structure Property Relationship
- + Types of Plastics
- + Specific properties each plastics (Mechanical, Electrical Chemical, Optical etc)
- + Processing Properties & Flow
- + Applications

2

Polymer Testing & Characterization

Content:

A. Polymer Testing: including 6 experiments:

12 hours lecture/ 12 hours lab (Module 3)

covering:

- + Density & hardness
- + Tensile/Flexural/Compression Test
- + Impact Test
- + Thermal Conductivity Test
- + Softening Test (Vicat Softening Temperature)
- + Dynamic: Time & Temperature Dependent Test
- + Flame test
- + Flow Test (MFI & Capillary Rheometry)

Assessment for award of DPRIM

Award of the DPRIM will be dependent on satisfactory performance in the written examination taken in APRIL and at the end of the course, i.e., in December, and assessment of practical reports. Internal and external examiners will jointly assess standards.

Fees

The Course fee is RM2800.00. If the applicant is not a member of PRIM, an application for the membership of the Institute should accompany the application for enrolment. The application fee is RM15.00 for a Student Membership.

The examination entry fee is RM240.00 comprising four papers at RM60.00 each.

Applications for Enrolment

Applications for enrolment to the Course must be made on the attached application form, (copies may be reproduced if there are more than one applicant from an organisation). The closing date for enrolment is 15 February 2011.

B. Polymer Characterization: including 4 experiments:

12 hours lecture/ 12 hours lab (Module 4) covering:

- + Thermal Analysis (DSC, TGA, DMTA, etc)
- + Infrared Spectroscopy (FTIR)
- + Gel Permeation Chromatography (GPC)
- + Optical Microscopy

3

Plastics Processing and Fabrication:

Content:

This subject includes: 6 lab sessions:

27 hours lecture/ 28 hours lab (Module 5) covering:

- + Continuous & Batch Process
- + Continuous Extrusion (Profile, Film & Sheet)
- + Batch Injection Moulding, Thermoforming, Blow Moulding,
- + Rotational Moulding, Compression Moulding,
- + Mixing; Twin Screw Compounders & Internal Mixers
- + Design of Experiment

4

Polymer Product & Mould Design: 24 hours

Content:

This subject includes: 2 lab sessions: 15 hours lecture / 9 hours lab) (Module 6) covering

- + Computer Aided Engineering (CAE & CAD)
- + Plastics Product Design & Mould Design
- + Data: Flow & Material Properties

