

# Undergraduate Certificate in the Fundamentals of Plasma and Vacuum Studies

Dublin City University

# OUTLINE OF COURSE

- **12 Modules**
- **Basics - Advanced**
- **6 weeks per module**
- **Continuous Assessment**
- **Examination at end of each module**

# Modules

## YEAR 1

Introductory Maths

Basic Physics I

Basic Chemistry I

Basic Physics II

Basic Chemistry II

Practical

## YEAR 2

Vacuum Technology

Materials Science

Intro to Industrial Plasmas

Process Design and Analysis

Materials Analysis

Plasma Processing

# Entry Requirements

**Irish Leaving Certificate in five subjects including English or Irish and Mathematics (or Applied Mathematics) or equivalent such as UK GCSEs or City and Guilds qualifications. Physics to leaving certificate level would be an advantage.**

**Where the participant is over 23 years there will be a qualifier examination set by the programme board to attain entry into the course.**



# Module Time Breakdown

	Hours
• Contact Lectures	9
• Online discussions/exercise solving	21
• Online Testing	5
• Assignments	8
• Participant Study Time	36
• Total Hours	79
Expected Student time per week	~13½ hours

# Typical Module Structure

Assignment 1 Released Wednesday - based on material in Units 1&2	Quiz 1 - Unit 1&2 12:00am – 12:00pm Friday	Assignment 2 Released Wednesday	Assignment 1 submitted prior to tutorial	Quiz 2 - Units 3,4,5 12:00am – 12:00pm Friday	Assignment 2 Submitted prior to tutorial Wednesday	FINAL ASSESSMENT
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
	Tutorial 1 17:30 – 20:30 Wednesday		Tutorial 2 17:30 – 20:30 Wednesday		Tutorial 3 17:30 – 20:30 Wednesday	

**NOTE : NO WEEK 1 QUIZ FOR INTRODUCTORY MATHS**

# Assessments

## Online quizzes (16.67 %)

10-14 multi-choice/matching/calculation questions, released for 12hrs on 2<sup>nd</sup>, 4<sup>th</sup> friday – should take approx. 1 hr to complete.

## Assignments (16.67%)

Questions based on 2 units per assignment. They are released on 1<sup>st</sup>, 3<sup>rd</sup> Wednesday. Submission is three weeks after release date. Late submissions will be penalised. Submissions can be made by (i) email (ii) handed in prior to tutorial (iii) posted in by mail or (iv) can be handed in by colleague in a sealed envelop. The solution to these question will be covered during the tutorial sessions.

## Discussions (16.67%)

Contributions to the online discussion will be allotted marks depending on level of contribution.

## Final assessment (50%)

Question 1, compulsory, 10 short questions.  
6 Other questions, do 3 ..... 3hrs in duration

# Assessments

Mark	Grade
Under 40	Fail
40-55	Pass
55-70	Merit
70-100	Distinction

Combined result – i.e. all individual assessments do not have to be passed.

# Addresses

**Course website: <http://webct.dcu.ie>**

**Further information on**

**Intel Continuing Education website**

**or at**

**<http://www.trip.dcu.ie>**