

PGD in Industrial Organic Chemistry

The program is designed to provide both theoretical and practical knowledge in organic chemistry for prospective students who wish to enhance their skills in organic chemistry. The program consists of theory coursework (25 credits), practical classes (4 credits) and industrial visits including guest lectures by industrial experts. This is a direct entry program. In addition, this program is offered as an exit option to the Master of Science in Industrial Organic Chemistry and Master of Industrial Organic Chemistry Degree programs.

Objectives/ Graduate Profile:

A graduate of Postgraduate Diploma in Industrial Organic Chemistry should be able to;

- *Propose, direct and carry out development processes of the respective fields through comprehensive theoretical knowledge and practical skills gained from the postgraduate level scientific training.*
- *Work independently as well as a team member or leader in diverse multidisciplinary settings to accomplish common goals.*
- *Apply knowledge effectively for effective problem-solving exercises.*
- *Communicate effectively in both written and oral forms.*

Professional and Employment Opportunities:

The program provides opportunities to obtain postgraduate level qualification for prospective students, teachers, current industrial and research institute personals with advanced knowledge and hands-on experiences in industrially oriented organic chemistry.

Admission Requirements:

To be eligible for admission to this program an applicant must possess one of the following qualifications;

- *BSc Special or Honours degree (SLQF 6) in Chemistry*
- *BSc General Degree (SLQF 5) with Chemistry as a subject*
- *BSc Special or Honours Degree (SLQF 6) with Chemistry as a subject*
- *BSc Degree (SLQF 5 or 6) in Chemical Engineering / Food Science or Agriculture / Pharmacy and Medical Laboratory Technology (MLT) with Chemistry as a subject / relevant subject area*
- *BSc Honours in Fisheries and Marine Sciences or Marine and Fresh water Sciences (SLQF 6) with Chemistry as a subject / relevant subject area*
- *Equivalent qualification recognized by the University Grants Commission*
- *Equivalent qualification accepted by the University Senate, University of Sri Jayewardenepura*

Course Duration: One year

Medium of Instruction: English

Course Description:

Course Code	Course Name	Credit Value	Status (Compulsory/Optional)
IOC80102	Advanced organic chemistry	2	compulsory
IOC80203	Separation and identification techniques of organic compounds	3	compulsory
IOC80302	Basics and principles of industrial organic chemistry and chemical engineering	2	compulsory
IOC80402	Modern medicinal chemistry	2	compulsory
IOC80503	Applications of microbiology, protein and food chemistry for industry*	3	optional
IOC80603	Organic chemistry applications in agriculture, petroleum and textile industries*	3	optional
IOC80703	Chemistry of natural products and industrial applications	3	compulsory
IOC80802	Industrial chemical and waste management, laboratory safety, and security	2	compulsory
IOC80902	Organic chemistry in nanotechnology and polymer science interface	2	compulsory
IOC81001	Quality assurance and management	1	compulsory
IOC81102	Research methodology, scientific communications, seminars and Industrial visits	2	compulsory
IOC81204	Laboratory practical ^{1,2}	4	compulsory
Total number of credits		29	

*Optional course - students are required to obtain 3 credits from IOC80503 and IOC80603 (It is required to obtain 26 out of 29 credits to be eligible for PGD).

¹Laboratory practical course (IOC81204) will be carried out throughout the 1st and 2nd semesters in the first year. The final grade for this course will be awarded at the end of the second semester.

² Non-taught component

Evaluation:

The candidate's performance at each course unit will be evaluated by theory examinations / practical examinations / continuous assessments / assessment reports / oral examination, etc. The assessment structure is modified when required, to facilitate achieving the intended learning outcomes of each course unit. When there are multiple assessment methods for a course unit, marks obtained by the candidate are combined in a pre-determined manner to obtain the final grade. All the theory courses will be evaluated based on End-Modular examinations.

It is necessary to maintain 80% or higher attendance for theory and practical sessions to become eligible to sit for the examination.

It is compulsory to finish all the practical classes within the first year of registration. Only for a valid medical reason a student may be allowed to follow practical classes with the next batch of students, an additional payment is charged in such an event.

Repeating the Course Units:

A candidate who is unable to sit for theory course unit examination or fails a theory course unit or obtained lower grade than B can repeat the examination. Except for medical reasons the maximum grade that can be obtained is B grade (55%). Only two attempts will be granted to repeat an examination. Non-taught components cannot be repeated under any circumstances.

If a student obtains a lower grade at a repeat attempt, the higher grade obtained at previous attempts will be used to calculate the GPA. Repeat examinations will be conducted at the same time with the next immediate PG Diploma batch.

If a candidate wants to repeat a course unit that is not offered to the next immediate PG Diploma batch, the candidate has to sit for a paper which is similar in content and credit value to the course unit that the candidate intended to repeat. In this case, the candidate must inform the coordinator before taking the exam and if necessary, prior approval must be obtained.

Awarding the Diploma:

Candidates should possess a minimum GPA of 2.7 for a total of at least 26 credits worth courses and shall maintain a minimum of C (40%) grade for course units except for laboratory practical course. Candidate should obtain a minimum of a B (55%) grade for the laboratory practical course.

Payment Plan:

Course fee can be paid in two installments, 60% of the course fee at the registration and the balance within 3 months of the first year.